

## **Health and Safety Closeout Report**

Atlantic Resources Corporation Site and Horseshoe  
Road Drum Dump Portion of the Horseshoe Road  
Complex Sites – Operable Unit No. 2

Sayreville, New Jersey

September 2014



A handwritten signature in black ink, appearing to read "Mohiuddin", written over a horizontal line.

Moh Mohiuddin, PhD, PE, BCEE, LSRP  
Project Manager

## Health and Safety Closeout Report

Atlantic Resources Corporation  
Site and Horseshoe Road Drum  
Dump Portion of the Horseshoe  
Road Complex Sites – Operable  
Unit 2

Sayreville, New Jersey

Prepared for:  
Operable Unit 2 (OU-2) Settling Work  
Defendants

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Our Ref.:  
NJ000514.0007

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**Acronyms and Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists
ARC	Atlantic Resources Corporation
CEI	Creamer Environmental, Inc.
COCs	contaminants of concern
DCA	dichloroethene
eV	electrovolt
FHSHB	Field Health and Safety Handbook
HASP	Health and Safety Plan
HRDD	Horseshoe Road Drum Dump
HSCP	Health and Safety Contingency Plan
JSA	Job Safety Analysis
L/min	liter(s) per minute
OSHA	Occupational Safety and Health Administration
OU-2	Operable Unit 2
PAHs	polycyclic aromatic hydrocarbons
PAMP	Perimeter Air Monitoring Plan
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
PEL	Permissible Exposure Limit

PID	photo-ionization detector
PM <sub>10</sub>	particulate matter less than 10 microns in size
PPE	personal protective equipment
RAR	Remedial Action Report
Sites	Atlantic Resources Corporation and Horseshoe Road Drum Dump portion of the Horseshoe Road Complex sites located in Sayreville, New Jersey
SVOC	semi-volatile organic compound
SWD	Settling Work Defendant
TCB	trichlorobenzene
TCE	trichloroethene
TIP	Task Improvement Process
TLV	Threshold Limit Value
USEPA	United States Environmental Protection Agency
VOCs	volatile organic compounds

## **1. Work Summary**

ARCADIS U.S., Inc. (ARCADIS), on behalf of the Operable Unit 2 (OU-2) Settling Work Defendants (SWDs) has prepared this report to document health and safety operations and performance during the remediation of surface and subsurface soils at the Atlantic Resources Corporation (ARC) site and Horseshoe Road Drum Dump (HRDD) portion of the Horseshoe Road Complex Sites (collectively, the Sites), located in Sayreville, New Jersey.

Construction activities at the Sites included excavation and disposal of approximately 123,000 tons of impacted soils, removal and disposal of 1,800 gallons of aqueous waste, and treatment and discharge of 0.737 million gallons of water from dewatering and decontamination activities. Elements of the remedial design for the Sites of particular health and safety importance included the following:

- The presence of two large sewer forcemains transecting the Sites, which necessitated construction of a temporary bridge to cross the forcemains and installation of trench boxes to accomplish deep excavation in the vicinity of the forcemains
- The presence of railroad tracks at the eastern boundary of the ARC site, which necessitated the installation of sheet piling, relocation of electrical poles and wires, and excavation utilizing steep slopes to accomplish deep excavations in the vicinity of the railroad tracks

ARCADIS was the prime contractor during the ARC and HRDD OU-2 remedial actions and retained Creamer Environmental Inc. (CEI) as the lead subcontractor. Various third-tier subcontractors worked on site with specializations including: railcar management, backfill delivery, fence installations, clearing and grubbing, electrical service and transmission installations, and other trades. Man-hours worked during the construction totaled 49,500 hours.

## **2. Elements of Health and Safety Program**

### **2.1 ARCADIS Health and Safety Management System**

The ARCADIS Health and Safety Management System is a principle- and behavior-based system that relies on employees and supervisors to assess risks prior to and at the time of the work and determine the proper controls before proceeding with the activities. This philosophy of continually assessing risks and planning work to employ appropriate controls is re-emphasized through a corporate safety culture that includes training on behavior-based methods.

### **2.2 Health and Safety Plans**

The ARCADIS Health and Safety Contingency Plan (HSCP), dated June 2013, was the primary reference for site-specific health and safety conditions and requirements. A summary presentation of the HSCP was provided to all site personnel as a component of site orientation training. There were two addenda to the HSCP. Addendum #01, dated November 1, 2013, addressed discovery of mercury during excavation in Excavation Cell K. Addendum #02, also dated November 1, 2013, updated the site behavior-based safety and task improvement process (Section 14 of the HSCP).

The CEI Health and Safety Plan (CEI-HASP), dated April 8, 2013, was the primary health and safety guidance for CEI and its subcontractors. This HASP was reviewed and approved by ARCADIS prior to implementation of construction activities. Addendum 1 to the CEI HASP was implemented on September 25, 2013 to address elevated concentrations of volatile organic compounds (VOCs) in the work zone. Addendum 2 to the CEI HASP was implemented on October 31, 2013 to address the discovery of mercury during excavation in Excavation Cell K.

The following sections describe components of the ARCADIS HSCP.

#### **2.2.1 Job Safety Analyses**

ARCADIS work planning included the preparation of Job Safety Analyses (JSAs) to identify risks and procedures to control risks during common work activities anticipated during construction at the Sites. The JSAs were reviewed and periodically updated in the field to identify additional risks and/or control measures.

### 2.2.2 Health and Safety Standards

The following ARCADIS Health and Safety Standards were included in the HSCP and provided to CEI to ensure that practices were consistent with ARCADIS standards.

- ARC HSCS005 – Excavation and Trenching
- ARC HSCS006 – Heavy and Mechanized Equipment
- ARC HSCS013 – Hot Work Standard
- ARC HSFS004 – Control of Hazardous Energy (Lockout/Tagout)
- ARC HSFS006 – Electrical Safety Standard
- ARC HSFS007 – Lead
- ARC HSFS010 – Health and Safety Plan Standard
- ARC HSFS012 – Hazardous Waste Operation and Emergency Response
- ARC HSFS019 – Utility Clearance
- ARC HSGE001 – Tailgate Health and Safety Meetings
- ARC HSGE004 – First Aid/CPR
- ARC HSGE007 – Hazard Communication
- ARC HSGE008 – Injury and Illness Prevention Program
- ARC HSGE009 – Stop Work Authority
- ARC HSGE010 – Medical Monitoring Program
- ARC HSGE013 – OSHA and Other Regulatory Agency Inspections

- ARC HSGE015 – Personal Protective Equipment
- ARC HSGE017 – Respiratory Protection
- ARC HSGE024 – Motor Vehicle Safety Program
- ARC HSIH003 – Benzene
- ARC HSIG008 – Hearing Conservation Health & Safety Standard
- ARC HSIG013 – Heat Stress Prevention
- ARC HSSP0002 – Railroad Workplace H&S Standard

#### 2.2.3 Field Health and Safety Handbook

The Field Health and Safety Handbook (FHSHB) is an ARCADIS document containing information about topic-specific H&S requirements for the field. This handbook contains relevant general topics and is used as part of the overall H&S program. To aid in the consistency of the H&S program the handbook was used as an informational source in conjunction with the HSCP. The following handbook sections were required reading for ARCADIS site managers for this project:

- III.G – Site Security, Work Zones and Decontamination for HAZWOPER Sites
- III.LL – Traffic Control
- IV.D – Excavation/Trenching
- IV.E – Heavy Equipment

### 2.3 Task Improvement Processes

ARCADIS identified specific tasks to target for Task Improvement Process (TIP) evaluations in Addendum #02 to the ARCADIS HSCP. ARCADIS planned to complete 64 to 94 TIPs during the course of this project in accordance with Addendum #02 of the HSCP. At completion of construction activities, ARCADIS had completed 76 TIPs, for a rate of 1 TIP per 650 work hours or 1.5 TIPs per week.

These TIPs are retained in the ARCADIS HSMS database, which allows findings to be shared throughout the company for continuous improvement.

**Table 1** identifies tasks targeted for TIP evaluations and the proposed number of TIPs to be performed for each task.

#### **2.4 Incident and Near Miss Reporting**

ARCADIS completed six near miss reports and three incident reports during the course of the project. CEI completed one incident report. Near miss and incident reports are summarized in **Table 2**.

### **3. Inspections and Reporting**

Implementation of the HSCP and CEI-HASP included the following inspection and reporting activities.

#### **3.1 Inspections**

Regular inspections were performed in accordance with the schedule below:

- Routine (daily): work areas and activities, open excavations and sidewall stability, heavy equipment, personal protective equipment (PPE), air monitoring equipment
- Weekly: rigging and lifting equipment, ladders, perimeter air monitoring stations, motor vehicles
- Monthly: fire extinguishers, respirators, supplied-air equipment, and emergency supplies

#### **3.2 Reporting**

The following reports pertaining to H&S are included in the project records presented in the Remedial Action Report (RAR) or the SharePoint site used for data exchange during project implementation.

- Daily Construction Activity Reports
- Daily Construction Quality Assurance Reports
- Weekly Air Monitoring Reports, including:
  - Meteorology
  - Work zone air monitoring
  - Real-time perimeter air monitoring
- Weekly Progress Reports
- Vibratory Hammer Noise Assessment
- Health and Safety Closeout Report



## **4. Health and Safety Monitoring**

### **4.1 Contaminants of Concern**

Pre-design investigations identified the following classes of contaminants of concern (COCs) at the sites:

- VOCs: benzene, chlorobenzene, chloroform, 1,2-dichloroethane (1,2-DCA), methylene chloride, tetrachloroethene (PCE), toluene, trichloroethene (TCE), xylenes
- Semi-volatile organic compounds (SVOCs): benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, hexachloroethane, indeno(1,2,3-cd)pyrene, 1,2,4-trichlorobenzene (1,2,4-TCB)
- Pesticides: aldrin, dieldrin, methoxychlor
- Polychlorinated biphenyls
- Metals: antimony, arsenic

In addition to the above COCs, lead and mercury were identified during waste characterization sampling.

### **4.2 Work Zone Air Monitoring**

#### **4.2.1 Work Zone Volatile Organic Compound Monitoring**

VOCs were monitored throughout the course of this project with portable photoionization detectors (PIDs) equipped with 10.6 electrovolt (eV) lamps. The instruments were calibrated with isobutylene span gas, providing a response factor appropriate for the VOCs of concern. In general, elevated PID readings corresponded with odors detected by site personnel. Additional air monitoring for specific VOCs (benzene, chloroform, and trichloroethene) was performed with Draeger-brand colorimetric detector tubes.

Work zone PID and Draeger tube readings for benzene and chloroform reached action level concentrations inside the exclusion zone work areas on 35 occasions. Responses to action level detections included the use of suppressant foam and/or

upgrade to Level B or Level C PPE. A summary of work zone action level exceedances for VOCs and corresponding response actions is presented in **Table 3**.

#### 4.2.2 Work Zone Particulate Monitoring

Work zone particulate levels were measured with a particulate/aerosol monitor. There were no action level exceedances in work zones for particulates during the course of the project.

#### 4.2.3 Work Zone Air Sampling for Volatile Organic Compounds

Time-integrated air samples were collected from within the work zone in response to benzene and chloroform action level exceedances detected with Draeger tubes. The air samples were collected with 3M 3500 passive sample badges worn by laborers and equipment operators working inside Level C and Level B exclusion zones on August 14, 2013 (Excavation Cell I) and September 30, 2013 (Excavation Cell K), respectively. Parameters monitored included: benzene, chlorobenzene, chloroform, ethylbenzene, methylene chloride, PCE, toluene, 1,2,4-TCB, and xylenes. The analytical results from these samples indicate that concentrations of all compounds were well below site action levels, American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) and Occupational Safety and Health Administration (OSHA) Permissible Exposure Levels (PELs).

The analytical reports for this sampling are included as **Attachment 1**.

#### 4.2.4 Work Zone Air Sampling for Lead

Time-integrated air samples were collected for lead exposure during excavation of Waste Area 9 of the ARC site on July 31, 2013. Samples were collected and analyzed in accordance with OSHA Method ID-125G, which consists of air being pumped through a filter cassette at a rate of 2 liters per minute (L/min) and the subsequent digestion and analysis of material retained on the filter cassette. Results from the two air samples collected on this date indicated that the exposure levels of individuals most at risk were at least two orders of magnitude below the OSHA PEL for lead. A copy of the analytical report is included in **Attachment 1**.

### **4.3 Perimeter Air Monitoring Program**

The perimeter air monitoring program employed semi-mobile air monitoring stations located around the site perimeter to collect real-time particulate matter and VOC data as described in the site Perimeter Air Monitoring Plan (PAMP), dated June 2013. There were three modifications of the PAMP throughout the OU-2 remedial activities, which are summarized below.

1. Following initial air sample collection in May 2013, saturation samplers were substituted in place of reference method samplers for the collection of polychlorinated biphenyl (PCB by U.S. Environmental Protection Agency [USEPA] Method TO-4A) as well as polynuclear aromatic hydrocarbons (PAHs) and pesticides (USEPA Method TO-13A). This modification was approved for implementation by USEPA on May 23, 2013.
2. The number of perimeter air monitoring stations was reduced from four to three stations as the size of the excavation was decreased. This modification was approved on January 8, 2014.
3. Perimeter air monitoring stations were removed following the completion of all excavation work. Upon removal of the perimeter air stations, perimeter air was monitored by mobile PID and dust monitors. This modification also included cessation of perimeter air sample collection. This modification was approved on April 30, 2014.

#### **4.3.1 Real-time Perimeter Air Monitoring**

The perimeter air monitoring stations operated from May 17, 2013 until May 12, 2014. Data from the real-time instruments was transferred to a data acquisition program, which sent alarm notifications to site personnel for high-level concentrations of particulate matter less than ten microns in size ( $PM_{10}$ ) and VOCs. This programmable alarm system allowed for select personnel to receive early warnings of elevated readings (condition yellow and orange) prior to exceedance of action levels established in the PAMP. This system was effective at providing adequate time for personnel to investigate site conditions and implement controls to avert potential exceedances of site action levels.

There were no perimeter air monitoring exceedances for VOCs resultant from migration of site contaminants throughout the course of OU-2 remedial actions. All documented exceedances of VOC action levels were the result of instrument error and were addressed through instrument maintenance or change-out.

Throughout the OU-2 remedial activities, there were no perimeter air monitoring exceedances for PM<sub>10</sub> resultant from migration of site contaminants. However, on three occasions, other site operations that caused alarm level conditions for PM<sub>10</sub>. These site operations included spreading of lime, seeding, and welding fumes. In each instance, the exceedance was mitigated in less than 30 minutes by modifying the site operations that triggered the high-level PM<sub>10</sub> alarm. In addition to the above exceedances due to site operations, alarm level conditions for PM<sub>10</sub> were also triggered by instrument error, fog, fouling of sampling equipment by insects and vegetation, emissions from the adjacent steel mill, and a nearby forest fire that affected regional air quality.

A summary of action level exceedances for perimeter air monitoring stations is presented in **Table 4**. The locations of perimeter air monitoring and sampling locations throughout the project are shown in **Attachment 2**.

#### 4.3.2 Perimeter Air Sampling

Time-integrated air samples were collected to establish background levels, and monthly thereafter, from each perimeter air monitoring station and analyzed for VOCs, SVOCs, PCBs, pesticides, and PM<sub>10</sub> as described in the PAMP and aforementioned modifications to the PAMP. Analytical results indicate that there were no exceedances of action levels for any parameters throughout the project. All minimum detection limits were below the action levels by at least one order of magnitude, including samples collected with saturation samplers instead of reference method samplers.

The results of VOCs analyses were consistent with real-time measurements from perimeter air station PIDs, and chemical species detected in the VOC analyses were consistent with the species detected from work zone air sampling. PM<sub>10</sub> analytical results were also consistent with observations from the real-time measurements from particulate/aerosol monitors at the perimeter air stations.

Laboratory analytical reports for perimeter air sampling are included in **Appendix A** to the Remedial Action Report.

## **5. Health and Safety Audit**

An ARCADIS corporate health and safety team conducted an assessment on October 2, 2013. The assessment was completed by Mr. Denis Balcer, Corporate Health and Safety Manager, and Mr. Andrew McDonald, Corporate Health and Safety Specialist. A summary of the audit findings, action items, and response actions implemented by site personnel is included as **Attachment 3**.

## Tables

Table 1. Proposed Task Improvement Process Evaluations  
ARC and HRDD Sites, Sayreville, New Jersey

Identified Task for TIP	Proposed Number of TIPs
Mobilization	3
Site Preparation	3
Site Security Inspections	2
Demolition and Removal of Existing Site Features	3
Relocation and Installation of Water Treatment System	2
Excavation Dewatering	2
Operation of Water Treatment System	2
Surveying	2
Compaction Testing	2
Excavation and Removal of Impacted Soil	4
Perimeter and Work Zone Air Monitoring	3
Temporary Bridge Installation and Removal	2
Temporary Sheet piling Installation and Removal	2
Installation of electric service to WWTP	2
Post-Excavation Sampling	3
Cover and Uncover Stockpiles	2
Line Rail Cars	2
Load Rail Cars	3
Backfilling and Restoration	3
Tree Planting	1
Decontamination	3
Demobilization	3
Various (may include any of the above tasks as well as miscellaneous tasks, new tasks or sub-tasks that arise through the course of the project)	10 to 30
<b>Total Proposed TIPS</b>	<b>64 to 94</b>

Table 2. Incident and Near Miss Reporting  
ARC and HRDD Sites, Sayreville, New Jersey

Date	Incident Description	Incident Classification
7/2/2013	Laceration	Reportable injury
10/23/2013	Hydraulic fluid leak	Spill Incident
2/21/2014	Muscle strain	Reportable Injury
4/17/2014	Motor vehicle accident	Property damage
10/14/2013	Struck head on solar panel	Near Miss
11/22/2013	Near collision with heavy equipment	Near Miss
1/24/2014	Front tire on the off-road dump truck went off the ramp to the bridge	Near Miss
2/19/2014	Sides of two backfill delivery trucks grazed each other when pulling away from drop site	Near Miss
3/10/2014	Backfill truck observed driving towards overhead lines with truck bed in the raised position.	Near Miss
5/5/2014	Abrasion to right hand while handling bricks without work gloves	Near Miss



Table 3. Summary of Work Zone VOC Action Level Exceedances and Response Actions  
ARC and HRDD Sites, Sayreville, New Jersey

Date	Description	Level of Protection/Response Actions
8/9/2013	Excavation in Slide Rail Box 11/Cell I	Use of suppressant foam
8/12/2013	Excavation in Slide Rail Box 11/Cell I	Use of suppressant foam
8/13/2013	Excavation in Slide Rail Box 11/Cell I	Use of suppressant foam
8/14/2013	Excavation in Slide Rail Box 11/Cell I	Use of suppressant foam
8/15/2013	Excavation in Slide Rail Box 11/Cell I	Use of suppressant foam
8/16/2013	Excavation in Slide Rail Box 11/Cell I	Use of suppressant foam
8/19/2013	Excavation in Slide Rail Box 11/Cell I	Use of suppressant foam
8/20/2013	Excavation in Slide Rail Box 11/Cell I	Use of suppressant foam
8/21/2013	Excavation in Slide Rail Boxes 11&12/Cell I	Allow material to ventilate before handling
8/22/2013	Excavation in Slide Rail Box 12/Cell I	Allow material to ventilate before handling
8/23/2013	Excavation in Slide Rail Box 12/Cell I	Allow material to ventilate before handling
9/17/2013	Excavation in Cell O	Upgrade to Level C PPE
9/19/2013	Excavation in Cell O	Upgrade to Level C PPE
9/30/2013	Excavation of drums from Cell K	Upgrade to Level B PPE, use of suppressant foam
10/3/2013	Excavation of drums from Cell K	Upgrade to Level C PPE, Use of suppressant foam
10/4/2013	Excavation of drums from Cell K	Upgrade to Level C PPE, Use of suppressant foam
10/7/2013	Excavation in Cell K	Upgrade to Level C PPE, Use of suppressant foam
10/8/2013	Excavation in Cell K	Upgrade to Level C PPE, Use of suppressant foam
10/9/2013	Excavation in Cell K	Upgrade to Level C PPE, Use of suppressant foam
10/10/2013	Excavation in Cell K	Use of suppressant foam
10/11/2013	Excavation in Cell K	Use of suppressant foam
10/14/2013	Excavation in Cell K	Upgrade to Level C PPE, Use of suppressant foam
10/15/2013	Excavation in Cell K	Upgrade to Level C PPE, Use of suppressant foam
10/16/2013	Excavation in Cell K	Upgrade to Level C PPE, Use of suppressant foam
10/17/2013	Excavation in Cell K	Upgrade to Level C PPE, Use of suppressant foam
10/18/2013	Excavation in Cell K	Use of suppressant foam
10/21/2013	Excavation in Cell K	Use of suppressant foam
10/22/2013	Excavation in Cell K	Use of suppressant foam
10/23/2013	Excavation in Cell K	Use of suppressant foam
10/25/2013	Excavation in Cell K	Use of suppressant foam
10/28/2013	Excavation in Cell K	Use of suppressant foam
10/29/2013	Excavation in Cell K	Use of suppressant foam
10/31/2013	Excavation in Cell K	Use of suppressant foam
11/4/2013	Removal of mercury waste	Upgrade to Level B/C PPE
11/14/2013	Removal of UST	Upgrade to Level B PPE, use of suppressant foam
4/2/2014	Excavation in Cell AD	Use of suppressant foam

Table 4. Summary of Perimeter Air Monitoring Action Level Exceedances  
ARC and HRDD Sites, Sayreville, New Jersey

Date	Criteria Exceeded	Cause
6/27/2013	5-minute PM10	Elevated background from smog/fog conditions in morning
7/17/2013	5-minute PM10	Elevated background from smog/fog conditions in morning
7/19/2013	5-minute PM10	Elevated background from smog/fog conditions in morning
8/8/2013	5-minute PM10	Emissions from steel mill impacting south station
8/21/2013	5-minute PM10	Instrument error during start-up
9/10/2013	5-minute PM10	Elevated background from smog/fog conditions in morning
9/11/2013	5-minute PM10	Elevated background from smog/fog conditions in morning
9/12/2013	5-minute PM10	Elevated background from smog/fog conditions in morning
9/18/2013	5-minute PM10	Application of lime into backfill
9/26/2013	5-minute PM10	Insects and vegetation drawn into sample air stream.
10/1/2013	5-minute PM10	Exceedance due to application of hydroseed on top soil
10/18/2013	15-minute VOC	Instrument error during morning start up
10/25/2013	15-minute VOC	Instrument error during morning start up
10/28/2013	5-minute PM10	Instrument error during morning start up
11/13/2013	15-minute VOC	Instrument error during morning start up
12/3/2013	5-minute PM10	Elevated background from fog conditions in morning
12/4/2013	5-minute PM10	Elevated background from fog conditions in morning
1/10/2014	5-minute PM10	Elevated background from fog conditions in morning
1/30/2014	5-minute PM10	Emissions from steel mill impacting south station
2/21/2014	5-minute PM10	Elevated background from fog conditions in morning
2/25/2014	5-minute PM10	Instrument error during morning start up
4/7/2014	5-minute PM10	Elevated background conditions for northern NJ and NYC due to forest fire in Wharton State Forest
4/8/2014	5-minute PM10	Alarm level conditions due to welding fumes from site operations
4/15/2013	15-minute VOC	Instrument error during morning start up



## **Attachment 1**

Work Zone Air Sampling Analytical  
Results



Mr. Gary Kowalski  
Creamer Environmental Inc.  
400 Horseshoe Rd  
Sayreville, NJ 08872

August 14, 2013

DOH ELAP# 11626  
AIHA # 100324

Account# 20344

Login# L297142

Dear Mr. Kowalski:

Enclosed are the analytical results for the samples received by our laboratory on August 08, 2013. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Current Scopes of Accreditation can be viewed at [www.galsonlabs.com](http://www.galsonlabs.com) in the accreditations section under the "about Galson" tab.

Please contact John Bailey at (888) 432-5227, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

**Galson Laboratories**

Mary G. Unangst  
Laboratory Director

Enclosure(s)



## LABORATORY ANALYSIS REPORT

6601 Kirkville Road  
East Syracuse, NY 13057  
(315) 432-5227  
FAX: (315) 437-0571  
www.galsonlabs.com

Client : Creamer Environmental, Inc.  
Site : Horseshoe Road  
Project No. : 12-2260  
Date Sampled : 31-JUL-13  
Date Received : 08-AUG-13  
Date Analyzed : 09-AUG-13 - 10-AUG-13  
Report ID : 793614

Account No.: 20344  
Login No. : L297142

---

**Lead**

<u>Sample ID</u>	<u>Lab ID</u>	<u>Air Vol</u> <u>liter</u>	<u>Total</u> <u>ug</u>	<u>Conc</u> <u>mg/m3</u>
20130731-001	L297142-1	788	<0.38	<0.00048
20130731-002	L297142-2	854	<0.38	<0.00044
20130731-003 BLANK	L297142-3	NA	<0.38	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

---

Level of quantitation: 0.38 ug	Submitted by: crd
Analytical Method : mod. NIOSH 7300/mod. OSHA ID-125G; ICP	Approved by : keg
OSHA PEL (TWA) : 0.05 mg/m3	Date : 12-AUG-13 NYS DOH # : 11626
Collection Media : Filter	QC by: Karen Becker

---

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
NA -Not Applicable	ND -Not Detected	ppm -Parts per Million	



LABORATORY FOOTNOTE REPORT

6601 Kirkville Road  
East Syracuse, NY 13057  
(315) 432-5227  
FAX: (315) 437-0571  
www.galsonlabs.com

Client Name : Creamer Environmental, Inc.  
Site : Horseshoe Road  
Project No. : 12-2260

Date Sampled : 31-JUL-13  
Date Received: 08-AUG-13  
Date Analyzed: 09-AUG-13 - 10-AUG-13

Account No.: 20344  
Login No. : L297142

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

Unless otherwise noted below, reported results have not been blank corrected for any field blank or method blank.

L297142 (Report ID: 793614):

The Lead results are considered accurate to within +/-10.3% based on a 95% confidence interval (k=2). This method has an average recovery of 99.9%. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process. Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.

SOPs: MT-SOP-9(24), im-mwvfilt(17)

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
NA -Not Applicable	ND -Not Detected	ppm -Parts per Million	





Mr. Gary Kowalski  
Creamer Environmental Inc.  
400 Horseshoe Rd  
Sayreville, NJ 08872

August 27, 2013

Account# 20344

Login# L297742

Dear Mr. Kowalski:

Enclosed are the analytical results for the samples received by our laboratory on August 16, 2013. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

All samples were subcontracted to Bureau Veritas/Clayton Group Services, Inc. Their report is enclosed in its entirety.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Current Scopes of Accreditation can be viewed at [www.galsonlabs.com](http://www.galsonlabs.com) in the accreditations section under the "about Galson" tab.

Please contact John Bailey at (888) 432-5227, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

**Galson Laboratories**

A handwritten signature in cursive script that reads "Mary G. Unangst".

Mary G. Unangst  
Laboratory Director

Enclosure(s)





August 23, 2013

Shelly Krause  
GALSON LABORATORIES  
6601 Kirkville Road  
East Syracuse, NY 13057-

Bureau Veritas Work Order No. 13081026

Reference: L297742

Dear Shelly Krause:

Bureau Veritas North America, Inc. received 6 samples on August 19, 2013 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Wendy Lesniak

Client Services Representative

Electronic signature authorized through password protection

**Bureau Veritas North America, Inc.**

*Health, Safety, and Environmental Services*

22345 Roethel Drive

Novi, MI 48375

Page 2 of 17 Report Reference:1 Generated:27-AUG-13 10:11

Main: (248) 344.1770

Fax: (248) 344.2655

[www.us.bureauveritas.com](http://www.us.bureauveritas.com)



## CASE NARRATIVE

Date: 23-Aug-13

CLIENT: GALSON LABORATORIES

Project: L297742

Work Order No 13081026

The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, and 3) the industrial hygiene results have not been blank corrected.

Below is the statistical precision and accuracy information for various compounds by OSHA 7, please note that there are not enough data points to provide statistical information for the following compounds: 1,2,4-trichlorobenzene, chlorobenzene, chloroform, or tetrachloroethene.

### Benzene

Number of samples =26

Recovery % = 95.35

Relative Standard Deviation % =4.42

### Ethylbenzene

Number of samples =24

Recovery % = 100.35

Relative Standard Deviation % =5.53

### Methylene Chloride

Number of samples =22

Recovery % = 96.85

Relative Standard Deviation % =5.21

### Toluene

Number of samples =26

Recovery % = 98.95

Relative Standard Deviation % =8.44

### Trichloroethylene

Number of samples =46

Recovery % = 100.10

Relative Standard Deviation % =5.29



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CLIENT: GALSON LABORATORIES

Project: L297742

Work Order No 13081026

---

Xylene

Number of samples =14

Recovery % = 96.40

Relative Standard Deviation % =5.39



## ANALYTICAL RESULTS

Date: 23-Aug-13

Client: GALSON LABORATORIES

Project: L297742

Work Order No: 13081026

Sample Identification: 20130814-001 BLANK

Date Sampled: 8/14/2013

Sample Type: 3M 3500 PM

Date Received: 8/19/2013

Lab Number: 001A

Sampling Time (min): 0

Analyst: MRM

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	<6	--	--	6	8/23/2013	OSHA 7
Benzene	35.5	<1	--	--	1	8/23/2013	OSHA 7
Chlorobenzene	29.3	<5	--	--	5	8/23/2013	OSHA 7
Chloroform	33.5	<6	--	--	6	8/23/2013	OSHA 7
Ethylbenzene	27.3	<3	--	--	3	8/23/2013	OSHA 7
Methylene Chloride	37.9	<7	--	--	7	8/23/2013	OSHA 7
Tetrachloroethene	28.3	<4	--	--	4	8/23/2013	OSHA 7
Toluene	31.4	<3	--	--	3	8/23/2013	OSHA 7
Trichloroethylene	31.1	<5	--	--	5	8/23/2013	OSHA 7
Xylene (Total)	27.3	<6	--	--	6	8/23/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.



## ANALYTICAL RESULTS

Date: 23-Aug-13

Client: GALSON LABORATORIES

Project: L297742

Work Order No: 13081026

Sample Identification: 20130814-002

Date Sampled: 8/14/2013

Sample Type: 3M 3500 PM

Date Received: 8/19/2013

Lab Number: 002A

Sampling Time (min): 581

Analyst: MRM

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	<6	<0.42	<0.056	6	8/23/2013	OSHA 7
Benzene	35.5	<1	<0.048	<0.015	1	8/23/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.29	<0.064	5	8/23/2013	OSHA 7
Chloroform	33.5	<6	<0.31	<0.063	6	8/23/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.19	<0.044	3	8/23/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.32	<0.092	7	8/23/2013	OSHA 7
Tetrachloroethene	28.3	<4	<0.24	<0.036	4	8/23/2013	OSHA 7
Toluene	31.4	10	0.55	0.15	3	8/23/2013	OSHA 7
Trichloroethylene	31.1	<5	<0.28	<0.051	5	8/23/2013	OSHA 7
Xylene (Total)	27.3	<6	<0.38	<0.087	6	8/23/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.



## ANALYTICAL RESULTS

Date: 23-Aug-13

Client: GALSON LABORATORIES

Project: L297742

Work Order No: 13081026

Sample Identification: 20130814-003

Date Sampled: 8/14/2013

Sample Type: 3M 3500 PM

Date Received: 8/19/2013

Lab Number: 003A

Sampling Time (min): 554

Analyst: MRM

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	<6	<0.44	<0.059	6	8/23/2013	OSHA 7
Benzene	35.5	<1	<0.051	<0.016	1	8/23/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.31	<0.067	5	8/23/2013	OSHA 7
Chloroform	33.5	<6	<0.32	<0.066	6	8/23/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.20	<0.046	3	8/23/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.33	<0.096	7	8/23/2013	OSHA 7
Tetrachloroethene	28.3	<4	<0.26	<0.038	4	8/23/2013	OSHA 7
Toluene	31.4	150	8.9	2.4	3	8/23/2013	OSHA 7
Trichloroethylene	31.1	<5	<0.29	<0.054	5	8/23/2013	OSHA 7
Xylene (Total)	27.3	<6	<0.40	<0.091	6	8/23/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.



## ANALYTICAL RESULTS

Date: 23-Aug-13

Client: GALSON LABORATORIES

Project: L297742

Work Order No: 13081026

Sample Identification: 20130814-004

Date Sampled: 8/14/2013

Sample Type: 3M 3500 PM

Date Received: 8/19/2013

Lab Number: 004A

Sampling Time (min): 554

Analyst: MRM

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	<6	<0.44	<0.059	6	8/23/2013	OSHA 7
Benzene	35.5	<1	<0.051	<0.016	1	8/23/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.31	<0.067	5	8/23/2013	OSHA 7
Chloroform	33.5	<6	<0.32	<0.066	6	8/23/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.20	<0.046	3	8/23/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.33	<0.096	7	8/23/2013	OSHA 7
Tetrachloroethene	28.3	<4	<0.26	<0.038	4	8/23/2013	OSHA 7
Toluene	31.4	67	3.9	1.0	3	8/23/2013	OSHA 7
Trichloroethylene	31.1	<5	<0.29	<0.054	5	8/23/2013	OSHA 7
Xylene (Total)	27.3	<6	<0.40	<0.091	6	8/23/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.



## ANALYTICAL RESULTS

Date: 23-Aug-13

Client: GALSON LABORATORIES

Project: L297742

Work Order No: 13081026

Sample Identification: 20130814-005

Date Sampled: 8/14/2013

Sample Type: 3M 3500 PM

Date Received: 8/19/2013

Lab Number: 005A

Sampling Time (min): 525

Analyst: MRM

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	<6	<0.46	<0.062	6	8/23/2013	OSHA 7
Benzene	35.5	<1	<0.054	<0.017	1	8/23/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.33	<0.071	5	8/23/2013	OSHA 7
Chloroform	33.5	<6	<0.34	<0.070	6	8/23/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.21	<0.048	3	8/23/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.35	<0.10	7	8/23/2013	OSHA 7
Tetrachloroethene	28.3	<4	<0.27	<0.040	4	8/23/2013	OSHA 7
Toluene	31.4	22	1.3	0.36	3	8/23/2013	OSHA 7
Trichloroethylene	31.1	<5	<0.31	<0.057	5	8/23/2013	OSHA 7
Xylene (Total)	27.3	<6	<0.42	<0.096	6	8/23/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.





## ANALYTICAL RESULTS

Date: 23-Aug-13

Client: GALSON LABORATORIES

Project: L297742

Work Order No: 13081026

Sample Identification: 20130814-006

Date Sampled: 8/14/2013

Sample Type: 3M 3500 PM

Date Received: 8/19/2013

Lab Number: 006A

Sampling Time (min): 522

Analyst: MRM

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	<6	<0.46	<0.062	6	8/23/2013	OSHA 7
Benzene	35.5	<1	<0.054	<0.017	1	8/23/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.33	<0.071	5	8/23/2013	OSHA 7
Chloroform	33.5	<6	<0.34	<0.070	6	8/23/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.21	<0.048	3	8/23/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.35	<0.10	7	8/23/2013	OSHA 7
Tetrachloroethene	28.3	<4	<0.27	<0.040	4	8/23/2013	OSHA 7
Toluene	31.4	<3	<0.18	<0.049	3	8/23/2013	OSHA 7
Trichloroethylene	31.1	<5	<0.31	<0.057	5	8/23/2013	OSHA 7
Xylene (Total)	27.3	<6	<0.42	<0.097	6	8/23/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.

13081020



6601 Kirkville Rd  
East Syracuse, NY 13057-9672  
Tel: 315-437-5227  
888-432-LABS(5227)  
Fax: 315-437-0571  
www.galsonlabs.com

BV - Novi

Check if change of address ☐

New Client? yes ☐  
no ☐

Report To : Shelly Krause Invoice To : Jeanne Glisson  
Galson Laboratory Galson Laboratory  
6601 Kirkville Road 6601 Kirkville Road  
East Syracuse, NY 13057 East Syracuse, NY 13057  
Phone No. : 888-432-5227 Phone No. : 888-432-5227  
Fax No. : 315-437-0571

Site Name : Project : L297742 Sampled By : Client

Need Results By:	(surcharge)
5 Business Days	0%
4 Business Days	35%
3 Business Days	50%
2 Business Days	75%
Next Day by 6pm	100%
Next Day by Noon	150%
Same day	200%

Verbal Authorization :  
Purchase Order No. : 20344  
Credit Card No. : Card Holder Name : Exp. :  
Fax Results To : Email Only Please Fax No. : Email Only Please  
Email Results To : skrause@galsonlabs.com

Page 1 of 17  
Report Reference: 1 Generated: 27 AUG 13 10:11

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	Toluene	OSHA 07; GC/FID	
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	Ethylbenzene	OSHA 07; GC/FID	
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	Benzene	OSHA 07; GC/FID	
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	Chloroform	OSHA 07; GC/FID	
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	Chlorobenzene	OSHA 07; GC/FID	
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	Trichloroethylene	OSHA 07; GC/FID	
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	Tetrachloroethylene	OSHA 07; GC/FID	
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	Xylene	OSHA 07; GC/FID	
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	1,2,4-Trichlorobenzene	OSHA 07; GC/FID	
20130814-001 BLANK	8/14/2013	M3M-3500	BLANK	Methylene Chloride	OSHA 07; GC/FID	
20130814-002	8/14/2013	M3M-3500	581.	Ethylbenzene	OSHA 07; GC/FID	

## COMMENTS:

If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 08/26/13. Rush charges are not authorized.\*\*

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by:	Cameron Kennedy		08/16/13 1430
Received by LAB:	David Ferris		8/19 10:00



13081026



6601 Kirkville Rd  
East Syracuse, NY 13057-9672  
Tel: 315-437-5227  
888-432-LABS(5227)  
Fax: 315-437-0571  
www.galsonlabs.com

BV - Novi

Check if change of address ☐  
New Client? yes ☐  
no ☐

Report To : Shelly Krause Invoice To : Jeanne Glisson  
Galson Laboratory  
6601 Kirkville Road  
East Syracuse, NY 13057  
Phone No. : 888-432-5227 Phone No. : 888-432-5227  
Fax No. : 315-437-0571

Site Name : Project : L297742 Sampled By : Client

Need Results By:	(surcharge)
5 Business Days	0%
4 Business Days	35%
3 Business Days	50%
2 Business Days	75%
Next Day by 6pm	100%
Next Day by Noon	150%
Same day	200%

Verbal Authorization :  
Purchase Order No. : 20344  
Credit Card No. : Card Holder Name : Exp. :  
Fax Results To : Email Only Please Fax No. : Email Only Please  
Email Results To : skrause@galsonlabs.com

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130814-002	8/14/2013	M3M-3500	581.	Toluene	OSHA 07; GC/FID	
20130814-002	8/14/2013	M3M-3500	581.	Methylene Chloride	OSHA 07; GC/FID	
20130814-002	8/14/2013	M3M-3500	581.	Trichloroethylene	OSHA 07; GC/FID	
20130814-002	8/14/2013	M3M-3500	581.	Xylene	OSHA 07; GC/FID	
20130814-002	8/14/2013	M3M-3500	581.	Tetrachloroethylene	OSHA 07; GC/FID	
20130814-002	8/14/2013	M3M-3500	581.	Chloroform	OSHA 07; GC/FID	
20130814-002	8/14/2013	M3M-3500	581.	1,2,4-Trichlorobenzene	OSHA 07; GC/FID	
20130814-002	8/14/2013	M3M-3500	581.	Benzene	OSHA 07; GC/FID	
20130814-002	8/14/2013	M3M-3500	581.	Chlorobenzene	OSHA 07; GC/FID	
20130814-003	8/14/2013	M3M-3500	554.	Trichloroethylene	OSHA 07; GC/FID	
20130814-003	8/14/2013	M3M-3500	554.	Toluene	OSHA 07; GC/FID	

## COMMENTS:

If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 08/26/13

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Cameron Kennedy		08/16/13 1430
Received by LAB :	David Ferris		8/19 10:00

Page 12 of 12  
Report Reference: 1 Generated: 27 AUG 13 10:11



130810206



6601 Kirkville Rd  
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888-432-LABS(5227)  
Fax: 315-437-0571  
www.galsonlabs.com

BV - Novi

Check if change of address ☐

New Client ? yes ☐  
no ☐

Report To : **Shelly Krause**  
Galson Laboratory  
6601 Kirkville Road  
East Syracuse, NY 13057  
Phone No. : 888-432-5227

Invoice To : **Jeanne Glisson**  
Galson Laboratory  
6601 Kirkville Road  
East Syracuse, NY 13057  
Phone No. : 888-432-5227  
Fax No. : 315-437-0571

Site Name :

Project :

L297742

Sampled By :

Client

Need Results By:	(surcharge)
<input checked="" type="checkbox"/> 5 Business Days	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same day	200%

Verbal Authorization : \_\_\_\_\_  
Purchase Order No. : 20344  
Credit Card No. : \_\_\_\_\_ Card Holder Name : \_\_\_\_\_ Exp. : \_\_\_\_\_

Fax Results To : \_\_\_\_\_ Email Only Please  
Email Results To : **skrause@galsonlabs.com**

Fax No. : \_\_\_\_\_ Email Only Please

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130814-003	8/14/2013	M3M-3500	554.	Ethylbenzene	OSHA 07; GC/FID	
20130814-003	8/14/2013	M3M-3500	554.	Chlorobenzene	OSHA 07; GC/FID	
20130814-003	8/14/2013	M3M-3500	554.	Xylene	OSHA 07; GC/FID	
20130814-003	8/14/2013	M3M-3500	554.	1,2,4-Trichlorobenzene	OSHA 07; GC/FID	
20130814-003	8/14/2013	M3M-3500	554.	Chloroform	OSHA 07; GC/FID	
20130814-003	8/14/2013	M3M-3500	554.	Tetrachloroethylene	OSHA 07; GC/FID	
20130814-003	8/14/2013	M3M-3500	554.	Benzene	OSHA 07; GC/FID	
20130814-003	8/14/2013	M3M-3500	554.	Methylene Chloride	OSHA 07; GC/FID	
20130814-004	8/14/2013	M3M-3500	554.	Ethylbenzene	OSHA 07; GC/FID	
20130814-004	8/14/2013	M3M-3500	554.	Chlorobenzene	OSHA 07; GC/FID	
20130814-004	8/14/2013	M3M-3500	554.	Chloroform	OSHA 07; GC/FID	

## COMMENTS:

If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 08/26/13

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Cameron Kennedy		08/16/13 1430
Received by LAB :	David Ferris		8/19 10:00



13081026



6601 Kirkville Rd  
East Syracuse, NY 13057-9672  
Tel: 315-437-5227  
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Fax: 315-437-0571  
www.galsonlabs.com

BV - Novi

Check if change  
of address ☐

New Client? yes ☐  
no ☐

Report To : Shelly Krause  
Galson Laboratory  
6601 Kirkville Road  
East Syracuse, NY 13057  
Phone No. : 888-432-5227

Invoice To : Jeanne Glisson  
Galson Laboratory  
6601 Kirkville Road  
East Syracuse, NY 13057  
Phone No. : 888-432-5227  
Fax No. : 315-437-0571

Site Name :

Project :

L297742

Sampled By :

Client

Need Results By:	(surcharge)
<input checked="" type="checkbox"/> 5 Business Days	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same day	200%

Verbal Authorization : \_\_\_\_\_  
Purchase Order No. : 20344  
Credit Card No. : \_\_\_\_\_ Card Holder Name : \_\_\_\_\_ Exp. : \_\_\_\_\_

Fax Results To : \_\_\_\_\_ Email Only Please  
Email Results To : skrause@galsonlabs.com

Fax No. : \_\_\_\_\_ Email Only Please

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130814-004	8/14/2013	M3M-3500	554.	Trichloroethylene	OSHA 07; GC/FID	
20130814-004	8/14/2013	M3M-3500	554.	Methylene Chloride	OSHA 07; GC/FID	
20130814-004	8/14/2013	M3M-3500	554.	1,2,4-Trichlorobenzene	OSHA 07; GC/FID	
20130814-004	8/14/2013	M3M-3500	554.	Tetrachloroethylene	OSHA 07; GC/FID	
20130814-004	8/14/2013	M3M-3500	554.	Xylene	OSHA 07; GC/FID	
20130814-004	8/14/2013	M3M-3500	554.	Toluene	OSHA 07; GC/FID	
20130814-004	8/14/2013	M3M-3500	554.	Benzene	OSHA 07; GC/FID	
20130814-005	8/14/2013	M3M-3500	525.	Trichloroethylene	OSHA 07; GC/FID	
20130814-005	8/14/2013	M3M-3500	525.	Tetrachloroethylene	OSHA 07; GC/FID	
20130814-005	8/14/2013	M3M-3500	525.	Chloroform	OSHA 07; GC/FID	
20130814-005	8/14/2013	M3M-3500	525.	1,2,4-Trichlorobenzene	OSHA 07; GC/FID	

## COMMENTS:

If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 08/26/13

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Cameron Kennedy		08/16/13 1430
Received by LAB :	David Ferris		8/19 10:00



13081626



6601 Kirkville Rd  
East Syracuse, NY 13057-9672  
Tel: 315-437-5227  
888-432-LABS(5227)  
Fax: 315-437-0571  
www.galsonlabs.com

BV - Novi

Check if change  
of address ☐

New Client? yes ☐  
no ☐

Report To : **Shelly Krause**  
Galson Laboratory  
6601 Kirkville Road  
East Syracuse, NY 13057  
Phone No. : 888-432-5227

Invoice To : **Jeanne Glisson**  
Galson Laboratory  
6601 Kirkville Road  
East Syracuse, NY 13057  
Phone No. : 888-432-5227  
Fax No. : 315-437-0571

Site Name :

Project :

L297742

Sampled By :

Client

Need Results By:	(surcharge)
<input checked="" type="checkbox"/> 5 Business Days	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same day	200%

Verbal Authorization :

Purchase Order No. : 20344

Credit Card No. : Card Holder Name : Exp. :

Fax Results To : Email Only Please

Fax No. : Email Only Please

Email Results To : skrause@galsonlabs.com

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130814-005	8/14/2013	M3M-3500	525.	Benzene	OSHA 07; GC/FID	
20130814-005	8/14/2013	M3M-3500	525.	Ethylbenzene	OSHA 07; GC/FID	
20130814-005	8/14/2013	M3M-3500	525.	Xylene	OSHA 07; GC/FID	
20130814-005	8/14/2013	M3M-3500	525.	Toluene	OSHA 07; GC/FID	
20130814-005	8/14/2013	M3M-3500	525.	Chlorobenzene	OSHA 07; GC/FID	
20130814-005	8/14/2013	M3M-3500	525.	Methylene Chloride	OSHA 07; GC/FID	
20130814-006	8/14/2013	M3M-3500	522.	Chloroform	OSHA 07; GC/FID	
20130814-006	8/14/2013	M3M-3500	522.	1,2,4-Trichlorobenzene	OSHA 07; GC/FID	
20130814-006	8/14/2013	M3M-3500	522.	Chlorobenzene	OSHA 07; GC/FID	
20130814-006	8/14/2013	M3M-3500	522.	Methylene Chloride	OSHA 07; GC/FID	
20130814-006	8/14/2013	M3M-3500	522.	Trichloroethylene	OSHA 07; GC/FID	

## COMMENTS:

If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 08/26/13

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Cameron Kennedy		08/16/13 1430
Received by LAB :	David Ferris		8/19 10:00

13081026



6601 Kirkville Rd  
East Syracuse, NY 13057-9672  
Tel: 315-437-5227  
888-432-LABS(5227)  
Fax: 315-437-0571  
www.galsonlabs.com

BV - Novi

Check if change of address ☐

New Client? yes ☐

no ☐

Report To : Shelly KrauseGalson Laboratory6601 Kirkville RoadEast Syracuse, NY 13057Phone No. : 888-432-5227Invoice To : Jeanne GlissonGalson Laboratory6601 Kirkville RoadEast Syracuse, NY 13057Phone No. : 888-432-5227Fax No. : 315-437-0571

Site Name :

Project : L297742Sampled By : Client

Need Results By: (surcharge)

- ☒ 5 Business Days 0%
- ☐ 4 Business Days 35%
- ☐ 3 Business Days 50%
- ☐ 2 Business Days 75%
- ☐ Next Day by 6pm 100%
- ☐ Next Day by Noon 150%
- ☐ Same day 200%

Verbal Authorization :

Purchase Order No. : 20344

Credit Card No. : \_\_\_\_\_ Card Holder Name : \_\_\_\_\_ Exp. : \_\_\_\_\_

Fax Results To : \_\_\_\_\_ Email Only Please

Fax No. : \_\_\_\_\_ Email Only Please

Email Results To : skrause@galsonlabs.com

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130814-006	8/14/2013	M3M-3500	522.	Ethylbenzene	OSHA 07; GC/FID	
20130814-006	8/14/2013	M3M-3500	522.	Xylene	OSHA 07; GC/FID	
20130814-006	8/14/2013	M3M-3500	522.	Toluene	OSHA 07; GC/FID	
20130814-006	8/14/2013	M3M-3500	522.	Tetrachloroethylene	OSHA 07; GC/FID	
20130814-006	8/14/2013	M3M-3500	522.	Benzene	OSHA 07; GC/FID	

## COMMENTS:

If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 08/26/13

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Cameron Kennedy		08/16/13 1430
Received by LAB :	David Ferris		8/19 1000





6601 Kirkville Rd  
East Syracuse, NY 13057  
Tel: (315) 432-5227  
888-432-LABS (5227)  
Fax: (315) 437-0571  
www.galsonlabs.com

☐ New Client?

Client Account No.\*:

Report To\*: Gary Kowalski, Project Manager

Creamer Environmental, Inc.

400 Horseshoe Road

Sayreville, N.J. 08872

Phone No.\*: 201-376-7153

Cell No.: 908-731-1091 (kizer)

Email Results to: wmkizer@parsenviro.com

Email address: GKowalski@creamerenvironmental.com

Invoice To\*: Creamer Environmental, Inc.

ATTN: 12-2260

215 Union Street

Hackensack, N.J. 07601

Phone No.: 201-968-3300

Email: GKowalski@creamerenvironmental.com

P.O. No.:

Credit Card: ☐ Card on File ☐ Call for Credit Card Info.

☐ Samples submitted using the FreePumpLoan™ Program

☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)	Site Name : Horseshoe Road	Project : 12-2260	Sampled by : W.M. Kizer, SSHO			
<input checked="" type="checkbox"/> Standard	0%	Comments : Analysis VOC's: BTEX, trichloroethylene, trichlorobenzene, chloroform, chlorobenzene, perchloroethylene (tetrachloroethylene), methylene chloride					
<input type="checkbox"/> 4 Business Days	35%	List description of industry or Process/interferences present in sampling area : <b>Former precious metal recclamation facility</b>					
<input type="checkbox"/> 3 Business Days	50%						
<input type="checkbox"/> 2 Business Days	75%						
<input type="checkbox"/> Next Day by 6pm	100%						
<input type="checkbox"/> Next Day by Noon	150%						
<input type="checkbox"/> Same Day	200%	State samples were collected in (e.g., NY) NJ			Please indicate which OEL this data will be used for : <input checked="" type="checkbox"/> OSHA PEL <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> Cal OSHA <input type="checkbox"/> MSHA <input type="checkbox"/> Other (specify):		
Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units* L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference*	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
20130814 - 001 Blank	08/14/13	3M 3500	0	Minutes	See "Comments" Section		Soil Excavation
20130814 - 002	08/14/13	3M 3500	581	Minutes	See "Comments" Section		Soil Excavation
20130814 - 003	08/14/13	3M 3500	591	Minutes	See "Comments" Section		Soil Excavation
20130814 - 004	08/14/13	3M 3500	554	Minutes	See "Comments" Section		Soil Excavation
20130814 - 005	08/14/13	3M 3500	525	Minutes	See "Comments" Section		Soil Excavation
20130814 - 006	08/14/13	3M 3500	522	Minutes	See "Comments" Section		Soil Excavation

\*Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☐ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)\*:

Chain of Custody	Print Name/Signature	Date	Time	Received by:	Print Name/Signature	Date	Time
Relinquished by:	William M. Kizer	08/14/13	1500	Received by:			
Relinquished by:	<i>William M. Kizer</i>			Received by:	<i>m. Krause</i>	8/16/13	1028

Samples received after 3pm will be considered as next day's business

\* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page 1 of 1





Mr. Gary Kowalski  
Creamer Environmental Inc.  
400 Horseshoe Rd  
Sayreville, NJ 08872

October 23, 2013

Account# 20344

Login# L302378

Dear Mr. Kowalski:

Enclosed are the analytical results for the samples received by our laboratory on October 14, 2013. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

All samples were subcontracted to Bureau Veritas/Clayton Group Services, Inc. Their report is enclosed in its entirety.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Current Scopes of Accreditation can be viewed at [www.galsonlabs.com](http://www.galsonlabs.com) in the accreditations section under the "about Galson" tab.

Please contact John Bailey at (888) 432-5227, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

**Galson Laboratories**

A handwritten signature in cursive script that reads "Mary G. Unangst".

Mary G. Unangst  
Laboratory Director

Enclosure(s)



October 23, 2013

Shelly Krause  
GALSON LABORATORIES  
6601 Kirkville Road  
East Syracuse, NY 13057-

Bureau Veritas Work Order No. 13101094

Reference: L302378

Dear Shelly Krause:

Bureau Veritas North America, Inc. received 7 samples on October 16, 2013 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Wendy Lesniak

Client Services Representative

Electronic signature authorized through password protection

**Bureau Veritas North America, Inc.**

*Health, Safety, and Environmental Services*

22345 Roethel Drive

Novi, MI 48375

Page 2 of 19 Report Reference:1 Generated:23-OCT-13 17:33

Main: (248) 344.1770

Fax: (248) 344.2655

[www.us.bureauveritas.com](http://www.us.bureauveritas.com)



## CASE NARRATIVE

Date: 23-Oct-13

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CLIENT: GALSON LABORATORIES

Project: L302378

Work Order No 13101094

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The results of this report relate only to the samples listed in the body of this report.

Unless otherwise noted below, the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, and 3) the industrial hygiene results have not been blank corrected.

Below is the statistical precision and accuracy information for various analytes by OSHA 7:

### Benzene

Number of samples =26

Recovery % = 95.35

Relative Standard Deviation % =4.42

### Chlorobenzene

Number of samples =16

Recovery % = 94.45

Relative Standard Deviation % =5.49

### Ethylbenzene

Number of samples =24

Recovery % = 100.35

Relative Standard Deviation % =5.53

### Methylene Chloride

Number of samples =22

Recovery % = 96.85

Relative Standard Deviation % =5.21

### Toluene

Number of samples =26

Recovery % = 98.95

Relative Standard Deviation % =8.44

### Trichloroethylene

Number of samples =46

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CLIENT: GALSON LABORATORIES

Project: L302378

Work Order No 13101094

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Recovery % = 100.10

Relative Standard Deviation % = 5.29

Xylene

Number of samples = 14

Recovery % = 96.40

Relative Standard Deviation % = 5.39

Please note that there are not enough data points to provide statistical information for chloroform, tetrachloroethene, and 1,2,4-Trichlorobenzene.



## ANALYTICAL RESULTS

Date: 23-Oct-13

Client: GALSON LABORATORIES

Project: L302378

Work Order No: 13101094

Sample Identification: 20130930-001

Date Sampled: 9/30/2013

Sample Type: 3M 3500 PM

Date Received: 10/16/2013

Lab Number: 001A

Sampling Time (min): 403

Analyst: CAW

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	<6	<0.60	<0.081	6	10/21/2013	OSHA 7
Benzene	35.5	<1	<0.070	<0.022	1	10/21/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.42	<0.092	5	10/21/2013	OSHA 7
Chloroform	33.5	<6	<0.44	<0.091	6	10/21/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.27	<0.063	3	10/21/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.46	<0.13	7	10/21/2013	OSHA 7
Tetrachloroethene	28.3	<4	<0.35	<0.052	4	10/21/2013	OSHA 7
Toluene	31.4	18	1.4	0.37	3	10/21/2013	OSHA 7
Trichloroethylene	31.1	<5	<0.40	<0.074	5	10/21/2013	OSHA 7
Xylene (Total)	27.3	<6	<0.55	<0.13	6	10/21/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.



## ANALYTICAL RESULTS

Date: 23-Oct-13

Client: GALSON LABORATORIES

Project: L302378

Work Order No: 13101094

Sample Identification: 20130930-002

Date Sampled: 9/30/2013

Sample Type: 3M 3500 PM

Date Received: 10/16/2013

Lab Number: 002A

Sampling Time (min): 403

Analyst: CAW

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	49	4.9	0.65	6	10/21/2013	OSHA 7
Benzene	35.5	<1	<0.070	<0.022	1	10/21/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.42	<0.092	5	10/21/2013	OSHA 7
Chloroform	33.5	<6	<0.44	<0.091	6	10/21/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.27	<0.063	3	10/21/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.46	<0.13	7	10/21/2013	OSHA 7
Tetrachloroethene	28.3	<4	<0.35	<0.052	4	10/21/2013	OSHA 7
Toluene	31.4	77	6.1	1.6	3	10/21/2013	OSHA 7
Trichloroethylene	31.1	<5	<0.40	<0.074	5	10/21/2013	OSHA 7
Xylene (Total)	27.3	6.4	0.59	0.13	6	10/21/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.



## ANALYTICAL RESULTS

Date: 23-Oct-13

Client: GALSON LABORATORIES

Project: L302378

Work Order No: 13101094

Sample Identification: 20130930-003

Date Sampled: 9/30/2013

Sample Type: 3M 3500 PM

Date Received: 10/16/2013

Lab Number: 003A

Sampling Time (min): 240

Analyst: CAW

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	12	2.0	0.27	6	10/21/2013	OSHA 7
Benzene	35.5	<1	<0.12	<0.037	1	10/21/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.71	<0.15	5	10/21/2013	OSHA 7
Chloroform	33.5	<6	<0.75	<0.15	6	10/21/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.46	<0.11	3	10/21/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.77	<0.22	7	10/21/2013	OSHA 7
Tetrachloroethene	28.3	9.0	1.3	0.20	4	10/21/2013	OSHA 7
Toluene	31.4	79	10	2.8	3	10/21/2013	OSHA 7
Trichloroethylene	31.1	7.1	0.96	0.18	5	10/21/2013	OSHA 7
Xylene (Total)	27.3	12	1.8	0.42	6	10/21/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.



## ANALYTICAL RESULTS

Date: 23-Oct-13

Client: GALSON LABORATORIES

Project: L302378

Work Order No: 13101094

Sample Identification: 20130930-004

Date Sampled: 9/30/2013

Sample Type: 3M 3500 PM

Date Received: 10/16/2013

Lab Number: 004A

Sampling Time (min): 405

Analyst: CAW

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	<6	<0.60	<0.080	6	10/21/2013	OSHA 7
Benzene	35.5	<1	<0.070	<0.022	1	10/21/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.42	<0.092	5	10/21/2013	OSHA 7
Chloroform	33.5	<6	<0.44	<0.091	6	10/21/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.27	<0.062	3	10/21/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.46	<0.13	7	10/21/2013	OSHA 7
Tetrachloroethene	28.3	<4	<0.35	<0.051	4	10/21/2013	OSHA 7
Toluene	31.4	11	0.87	0.23	3	10/21/2013	OSHA 7
Trichloroethylene	31.1	<5	<0.40	<0.074	5	10/21/2013	OSHA 7
Xylene (Total)	27.3	<6	<0.54	<0.12	6	10/21/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.





## ANALYTICAL RESULTS

Date: 23-Oct-13

Client: GALSON LABORATORIES

Project: L302378

Work Order No: 13101094

Sample Identification: 20130930-005

Date Sampled: 9/30/2013

Sample Type: 3M 3500 PM

Date Received: 10/16/2013

Lab Number: 005A

Sampling Time (min): 417

Analyst: CAW

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	6.1	0.59	0.080	6	10/21/2013	OSHA 7
Benzene	35.5	<1	<0.068	<0.021	1	10/21/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.41	<0.089	5	10/21/2013	OSHA 7
Chloroform	33.5	<6	<0.43	<0.088	6	10/21/2013	OSHA 7
Ethylbenzene	27.3	<3	<0.26	<0.061	3	10/21/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.44	<0.13	7	10/21/2013	OSHA 7
Tetrachloroethene	28.3	<4	<0.34	<0.050	4	10/21/2013	OSHA 7
Toluene	31.4	16	1.2	0.32	3	10/21/2013	OSHA 7
Trichloroethylene	31.1	<5	<0.39	<0.072	5	10/21/2013	OSHA 7
Xylene (Total)	27.3	<6	<0.53	<0.12	6	10/21/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.



## ANALYTICAL RESULTS

Date: 23-Oct-13

Client: GALSON LABORATORIES

Project: L302378

Work Order No: 13101094

Sample Identification: 20130930-006

Date Sampled: 9/30/2013

Sample Type: 3M 3500 PM

Date Received: 10/16/2013

Lab Number: 006A

Sampling Time (min): 384

Analyst: CAW

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	16	1.7	0.23	6	10/21/2013	OSHA 7
Benzene	35.5	<1	<0.073	<0.023	1	10/21/2013	OSHA 7
Chlorobenzene	29.3	<5	<0.44	<0.097	5	10/21/2013	OSHA 7
Chloroform	33.5	<6	<0.47	<0.096	6	10/21/2013	OSHA 7
Ethylbenzene	27.3	3.1	0.29	0.067	3	10/21/2013	OSHA 7
Methylene Chloride	37.9	<7	<0.48	<0.14	7	10/21/2013	OSHA 7
Tetrachloroethene	28.3	13	1.2	0.17	4	10/21/2013	OSHA 7
Toluene	31.4	120	9.6	2.6	3	10/21/2013	OSHA 7
Trichloroethylene	31.1	12	1.0	0.19	5	10/21/2013	OSHA 7
Xylene (Total)	27.3	16	1.5	0.34	6	10/21/2013	OSHA 7

### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.



## ANALYTICAL RESULTS

Date: 23-Oct-13

Client: GALSON LABORATORIES

Project: L302378

Work Order No: 13101094

Sample Identification: 20130930-007 BLANK

Date Sampled: 9/30/2013

Sample Type: 3M 3500 PM

Date Received: 10/16/2013

Lab Number: 007A

Sampling Time (min): 0

Analyst: CAW

Analyte	Sampling Rate (cc/min)	Analytical Results			Reporting Limit (µg)	Date Analyzed	Method Reference
		(µg)	(mg/m <sup>3</sup> )	(ppm)			
1,2,4-Trichlorobenzene	24.8	<6	--	--	6	10/21/2013	OSHA 7
Benzene	35.5	<1	--	--	1	10/21/2013	OSHA 7
Chlorobenzene	29.3	<5	--	--	5	10/21/2013	OSHA 7
Chloroform	33.5	<6	--	--	6	10/21/2013	OSHA 7
Ethylbenzene	27.3	<3	--	--	3	10/21/2013	OSHA 7
Methylene Chloride	37.9	<7	--	--	7	10/21/2013	OSHA 7
Tetrachloroethene	28.3	<4	--	--	4	10/21/2013	OSHA 7
Toluene	31.4	<3	--	--	3	10/21/2013	OSHA 7
Trichloroethylene	31.1	<5	--	--	5	10/21/2013	OSHA 7
Xylene (Total)	27.3	<6	--	--	6	10/21/2013	OSHA 7


### General Notes:

<: Less than the indicated reporting limit (RL).

--: Information not available or not applicable.

Back sections (if applicable) were checked and showed no significant breakthrough unless otherwise noted.

13101094

 <p>6601 Kirkville Rd East Syracuse, NY 13057-9672 Tel: 315-437-5227 888-432-LABS(5227) Fax: 315-437-0571 www.galsonlabs.com</p>	BV - Novi		Report To : <b>Shelly Krause</b>	Invoice To : <b>Jeanne Glisson</b>
	Check if change of address <input type="checkbox"/>		Galson Laboratory	Galson Laboratory
	New Client ? yes <input type="checkbox"/> no <input type="checkbox"/>		6601 Kirkville Road	6601 Kirkville Road
			East Syracuse, NY 13057	East Syracuse, NY 13057
			Phone No. : 888-432-5227	Phone No. : 888-432-5227
			Fax No. : 315-437-0571	
Site Name :		Project : L302378	Sampled By :	Client

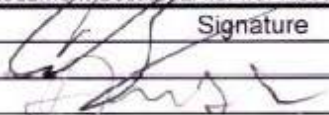
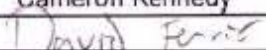
<table border="1"> <tr> <th>Need Results By:</th> <th>(surcharge)</th> </tr> <tr> <td><input checked="" type="checkbox"/> 5 Business Days</td> <td>0%</td> </tr> <tr> <td><input type="checkbox"/> 4 Business Days</td> <td>35%</td> </tr> <tr> <td><input type="checkbox"/> 3 Business Days</td> <td>50%</td> </tr> <tr> <td><input type="checkbox"/> 2 Business Days</td> <td>75%</td> </tr> <tr> <td><input type="checkbox"/> Next Day by 6pm</td> <td>100%</td> </tr> <tr> <td><input type="checkbox"/> Next Day by Noon</td> <td>150%</td> </tr> <tr> <td><input type="checkbox"/> Same day</td> <td>200%</td> </tr> </table>	Need Results By:	(surcharge)	<input checked="" type="checkbox"/> 5 Business Days	0%	<input type="checkbox"/> 4 Business Days	35%	<input type="checkbox"/> 3 Business Days	50%	<input type="checkbox"/> 2 Business Days	75%	<input type="checkbox"/> Next Day by 6pm	100%	<input type="checkbox"/> Next Day by Noon	150%	<input type="checkbox"/> Same day	200%	Verbal Authorization : _____ Purchase Order No. : 20344 Credit Card No. : _____ Card Holder Name : _____ Exp. : _____ Fax Results To : _____ Email Only Please Email Results To : <b>skrause@galsonlabs.com</b>
Need Results By:	(surcharge)																
<input checked="" type="checkbox"/> 5 Business Days	0%																
<input type="checkbox"/> 4 Business Days	35%																
<input type="checkbox"/> 3 Business Days	50%																
<input type="checkbox"/> 2 Business Days	75%																
<input type="checkbox"/> Next Day by 6pm	100%																
<input type="checkbox"/> Next Day by Noon	150%																
<input type="checkbox"/> Same day	200%																

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130930-001	9/30/2013	M3M-3500	403.	Toluene	OSHA 07; GC/FID	
20130930-001	9/30/2013	M3M-3500	403.	Xylene	OSHA 07; GC/FID	
20130930-001	9/30/2013	M3M-3500	403.	Ethylbenzene	OSHA 07; GC/FID	
20130930-001	9/30/2013	M3M-3500	403.	Benzene	OSHA 07; GC/FID	
20130930-001	9/30/2013	M3M-3500	403.	1,2,4-Trichlorobenzene	OSHA 07; GC/FID	
20130930-001	9/30/2013	M3M-3500	403.	Chloroform	OSHA 07; GC/FID	
20130930-001	9/30/2013	M3M-3500	403.	Tetrachloroethylene	OSHA 07; GC/FID	
20130930-001	9/30/2013	M3M-3500	403.	Trichloroethylene	OSHA 07; GC/FID	
20130930-001	9/30/2013	M3M-3500	403.	Methylene Chloride	OSHA 07; GC/FID	
20130930-001	9/30/2013	M3M-3500	403.	Chlorobenzene	OSHA 07; GC/FID	
20130930-002	9/30/2013	M3M-3500	403.	Toluene	OSHA 07; GC/FID	

**COMMENTS:**


If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 10/23/13. Rush charges are not authorized.\*\*

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Cameron Kennedy		10/15/13 0921
Received by LAB :			10/16/13 11:15



13101094

 <b>GALSON</b> LABORATORIES		BV - Novi 6601 Kirkville Rd East Syracuse, NY 13057-9672 Tel: 315-437-5227 888-432-LABS(5227) Fax: 315-437-0571 www.galscnlabs.com	Report To : <b>Shelly Krause</b> Galson Laboratory 6601 Kirkville Road East Syracuse, NY 13057 Phone No. : 888-432-5227	Invoice To : <b>Jeanne Glisson</b> Galson Laboratory 6601 Kirkville Road East Syracuse, NY 13057 Phone No. : 888-432-5227 Fax No. : 315-437-0571
-----------------------------------------------------------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------

Check if change of address ☐  
 New Client ? yes ☐ no ☐

<b>Site Name :</b> _____		<b>Project :</b> L302378	<b>Sampled By :</b> _____	<b>Client</b>
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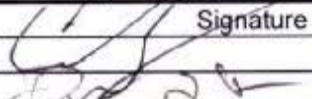

<b>Need Results By:</b> (surcharge)	Verbal Authorization : _____
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<input type="checkbox"/> 4 Business Days 35%	Credit Card No. : _____ Card Holder Name : _____ Exp. : _____
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<input type="checkbox"/> 2 Business Days 75%	
<input type="checkbox"/> Next Day by 6pm 100%	Fax Results To : _____ Email Only Please
<input type="checkbox"/> Next Day by Noon 150%	Fax No. : _____ Email Only Please
<input type="checkbox"/> Same day 200%	Email Results To : <b>skrause@galsonlabs.com</b>

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130930-002	9/30/2013	M3M-3500	403.	Ethylbenzene *	OSHA 07; GC/FID	
20130930-002	9/30/2013	M3M-3500	403.	Benzene *	OSHA 07; GC/FID	
20130930-002	9/30/2013	M3M-3500	403.	Chloroform -	OSHA 07; GC/FID	
20130930-002	9/30/2013	M3M-3500	403.	Chlorobenzene -	OSHA 07; GC/FID	
20130930-002	9/30/2013	M3M-3500	403.	Trichloroethylene -	OSHA 07; GC/FID	
20130930-002	9/30/2013	M3M-3500	403.	Tetrachloroethylene *	OSHA 07; GC/FID	
20130930-002	9/30/2013	M3M-3500	403.	Xylene -	OSHA 07; GC/FID	
20130930-002	9/30/2013	M3M-3500	403.	1,2,4-Trichlorobenzene -	OSHA 07; GC/FID	
20130930-002	9/30/2013	M3M-3500	403.	Methylene Chloride -	OSHA 07; GC/FID	
20130930-003	9/30/2013	M3M-3500	240	Ethylbenzene -	OSHA 07; GC/FID	
20130930-003	9/30/2013	M3M-3500	240	Toluene -	OSHA 07; GC/FID	

**COMMENTS:**


If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 10/23/13

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Cameron Kennedy		10/15/13 0921
Received by LAB :	David Ferris		10/16 11:48



13101094

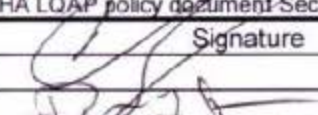
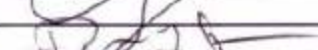
 <b>GALSON</b> LABORATORIES 6601 Kirkville Rd East Syracuse, NY 13057-9672 Tel: 315-437-5227 888-432-LABS(5227) Fax: 315-437-0571 www.galsonlabs.com	<b>BV - Novi</b>		Report To: <u>Shelly Krause</u> Galson Laboratory 6601 Kirkville Road East Syracuse, NY 13057 Phone No.: <u>888-432-5227</u>	Invoice To: <u>Jeanne Glisson</u> Galson Laboratory 6601 Kirkville Road East Syracuse, NY 13057 Phone No.: <u>888-432-5227</u> Fax No.: <u>315-437-0571</u>
	Check if change of address <input type="checkbox"/> New Client ? yes <input type="checkbox"/> no <input type="checkbox"/>			
	Site Name: _____ Project: <u>L302378</u> Sampled By: _____ Client: _____			
	Need Results By: (surcharge) Verbal Authorization: _____ <input checked="" type="checkbox"/> 5 Business Days 0% Purchase Order No.: <u>20344</u> <input type="checkbox"/> 4 Business Days 35% Credit Card No.: _____ Card Holder Name: _____ Exp.: _____ <input type="checkbox"/> 3 Business Days 50% <input type="checkbox"/> 2 Business Days 75% <input type="checkbox"/> Next Day by 6pm 100% <input type="checkbox"/> Next Day by Noon 150% <input type="checkbox"/> Same day 200%			
	Fax Results To: _____ Email Only Please Fax No.: _____ Email Only Please Email Results To: <u>skrause@galsonlabs.com</u>			

Page 14 of 19 Report Reference: 1 Generated 23-OCT-13 17:33

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130930-003	9/30/2013	M3M-3500	240	Methylene Chloride	OSHA 07; GC/FID	
20130930-003	9/30/2013	M3M-3500	240	Trichloroethylene	OSHA 07; GC/FID	
20130930-003	9/30/2013	M3M-3500	240	Xylene	OSHA 07; GC/FID	
20130930-003	9/30/2013	M3M-3500	240	Tetrachloroethylene	OSHA 07; GC/FID	
20130930-003	9/30/2013	M3M-3500	240	Chloroform	OSHA 07; GC/FID	
20130930-003	9/30/2013	M3M-3500	240	1,2,4-Trichlorobenzene	OSHA 07; GC/FID	
20130930-003	9/30/2013	M3M-3500	240	Benzene	OSHA 07; GC/FID	
20130930-003	9/30/2013	M3M-3500	240	Chlorobenzene	OSHA 07; GC/FID	
20130930-004	9/30/2013	M3M-3500	405	Trichloroethylene	OSHA 07; GC/FID	
20130930-004	9/30/2013	M3M-3500	405	Toluene	OSHA 07; GC/FID	
20130930-004	9/30/2013	M3M-3500	405	Ethylbenzene	OSHA 07; GC/FID	

**COMMENTS:**

If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.  
 \*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 10/23/13

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Cameron Kennedy		10/15/13 0921
Received by LAB :	David Ferris		10/16 11:45



13101094



6601 Kirkville Rd  
East Syracuse, NY 13057-9672  
Tel: 315-437-5227  
888-432-LABS(5227)  
Fax: 315-437-0571  
www.galsonlabs.com

BV - Novi

Check if change  
of address: ☐

New Client? yes ☐  
no ☐

Report To: Shelly Krause  
Galson Laboratory  
6601 Kirkville Road  
East Syracuse, NY 13057  
Phone No.: 888-432-5227

Invoice To: Jeanne Glisson  
Galson Laboratory  
6601 Kirkville Road  
East Syracuse, NY 13057  
Phone No.: 888-432-5227  
Fax No.: 315-437-0571

Site Name:

Project: L302378

Sampled By: Client

Need Results By:	(surcharge)
<input checked="" type="checkbox"/> 5 Business Days	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same day	200%

Verbal Authorization: \_\_\_\_\_  
Purchase Order No.: 20344  
Credit Card No.: \_\_\_\_\_ Card Holder Name: \_\_\_\_\_ Exp.: \_\_\_\_\_

Fax Results To: \_\_\_\_\_ Email Only Please  
Email Results To: skrause@galsonlabs.com

Fax No.: \_\_\_\_\_ Email Only Please

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130930-004	9/30/2013	M3M-3500	405.	Chlorobenzene	OSHA 07; GC/FID	
20130930-004	9/30/2013	M3M-3500	405.	Xylene	OSHA 07; GC/FID	
20130930-004	9/30/2013	M3M-3500	405.	1,2,4-Trichlorobenzene	OSHA 07; GC/FID	
20130930-004	9/30/2013	M3M-3500	405.	Chloroform	OSHA 07; GC/FID	
20130930-004	9/30/2013	M3M-3500	405.	Tetrachloroethylene	OSHA 07; GC/FID	
20130930-004	9/30/2013	M3M-3500	405.	Benzene	OSHA 07; GC/FID	
20130930-004	9/30/2013	M3M-3500	405.	Methylene Chloride	OSHA 07; GC/FID	
20130930-005	9/30/2013	M3M-3500	417.	Ethylbenzene	OSHA 07; GC/FID	
20130930-005	9/30/2013	M3M-3500	417.	Chlorobenzene	OSHA 07; GC/FID	
20130930-005	9/30/2013	M3M-3500	417.	Chloroform	OSHA 07; GC/FID	
20130930-005	9/30/2013	M3M-3500	417.	Trichloroethylene	OSHA 07; GC/FID	

## COMMENTS:


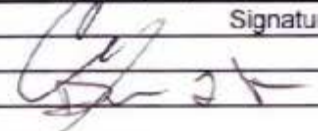
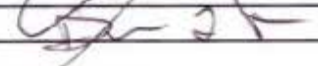
If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 10/23/13

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by:	Cameron Kennedy		10/15/13 0921
Received by LAB:	David Ferris		10/16 11:45




13101094

 <b>GALSON</b> LABORATORIES 6601 Kirkville Rd East Syracuse, NY 13057-9672 Tel: 315-437-5227 888-432-LABS(5227) Fax: 315-437-0571 www.galsonlabs.com		BV - Novi		Report To : <b>Shelly Krause</b>		Invoice To : <b>Jeanne Glisson</b>																																																																																	
		Check if change of address <input type="checkbox"/> New Client ? yes <input type="checkbox"/> no <input type="checkbox"/>		Galson Laboratory 6601 Kirkville Road East Syracuse, NY 13057 Phone No. : 888-432-5227		Galson Laboratory 6601 Kirkville Road East Syracuse, NY 13057 Phone No. : 888-432-5227 Fax No. : 315-437-0571																																																																																	
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<b>Need Results By:</b> (surcharge) <input checked="" type="checkbox"/> 5 Business Days 0% <input type="checkbox"/> 4 Business Days 35% <input type="checkbox"/> 3 Business Days 50% <input type="checkbox"/> 2 Business Days 75% <input type="checkbox"/> Next Day by 6pm 100% <input type="checkbox"/> Next Day by Noon 150% <input type="checkbox"/> Same day 200%		Verbal Authorization : _____ Purchase Order No. : 20344 Credit Card No. : _____ Card Holder Name : _____ Exp. : _____ Fax Results To : _____ Email Only Please Fax No. : _____ Email Only Please Email Results To : <b>skrause@galsonlabs.com</b>																																																																																					
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20130930-006	9/30/2013	M3M-3500	384.	1,2,4-Trichlorobenzene	OSHA 07; GC/FID																																																																																		
20130930-006	9/30/2013	M3M-3500	384.	Benzene	OSHA 07; GC/FID																																																																																		
<b>COMMENTS:</b>  If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report. **Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 10/23/13																																																																																							
Chain of Custody		Print Name		Signature		Date/Time																																																																																	
Relinquished by :		Cameron Kennedy				10/15/13 0921																																																																																	
Received by LAB :		David Ferris				10/16 11:45																																																																																	



Page 17 of 19 Report Reference: 1 Generated: 23-OCT-13 17:33

13101094

 <b>GALSON</b> LABORATORIES		<b>BV - Novi</b> Report To : <u>Shelly Krause</u> Galson Laboratory 6601 Kirkville Road East Syracuse, NY 13057 Phone No. : <u>888-432-5227</u>		Invoice To : <u>Jeanne Glisson</u> Galson Laboratory 6601 Kirkville Road East Syracuse, NY 13057 Phone No. : <u>888-432-5227</u> Fax No. : <u>315-437-0571</u>	
6601 Kirkville Rd East Syracuse, NY 13057-9672 Tel: 315-437-5227 888-432-LABS(5227) Fax: 315-437-0571 www.galsonlabs.com		Check if change of address <input type="checkbox"/> New Client ? yes <input type="checkbox"/> no <input type="checkbox"/>			

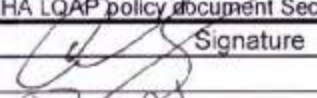

<b>Site Name :</b> _____		<b>Project :</b> L302378		<b>Sampled By :</b> _____		<b>Client</b> _____	
<b>Need Results By:</b> (surcharge)		<b>Verbal Authorization :</b> _____					
<input checked="" type="checkbox"/> 5 Business Days 0%		<b>Purchase Order No. :</b> 20344					
<input type="checkbox"/> 4 Business Days 35%		<b>Credit Card No. :</b> _____ <b>Card Holder Name :</b> _____ <b>Exp. :</b> _____					
<input type="checkbox"/> 3 Business Days 50%							
<input type="checkbox"/> 2 Business Days 75%							
<input type="checkbox"/> Next Day by 6pm 100%		<b>Fax Results To :</b> _____ <b>Email Only Please</b> <b>Fax No. :</b> _____ <b>Email Only Please</b>					
<input type="checkbox"/> Next Day by Noon 150%		<b>Email Results To :</b> <u>skrause@galsonlabs.com</u>					
<input type="checkbox"/> Same day 200%							

Sample Identification	Date Sampled	Collection Medium	*Air Volume (liters)/ Passive Monitors (Min)	Analysis Requested	Method Reference	Specific DL Needed
20130930-007 BLANK	9/30/2013	M3M-3500	BLANK	Xylene	OSHA 07; GC/FID	
20130930-007 BLANK	9/30/2013	M3M-3500	BLANK	Toluene	OSHA 07; GC/FID	
20130930-007 BLANK	9/30/2013	M3M-3500	BLANK	Tetrachloroethylene	OSHA 07; GC/FID	
20130930-007 BLANK	9/30/2013	M3M-3500	BLANK	Benzene	OSHA 07; GC/FID	

**COMMENTS:**

If the method being reported is not on your laboratory's current AIHA scope of accreditation, please state that in your report.

\*\*Please provide an uncertainty statement in accordance with AIHA LQAP policy document Section 2A.5.4.3. Need results by 10/23/13

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by :	Cameron Kenney		10/15/13 0921
Received by LAB :	David Ferris		10/16/13 1515





6601 Kirkville Rd  
East Syracuse, NY 13057  
Tel: (315) 432-5227  
888-432-LABS (5227)  
Fax: (315) 437-0571  
www.galsonlabs.com

☐ New Client?

Client Account No.:

Report To\*: **Gary Kowalski, Project Manager**  
**Creamer Environmental, Inc.**  
**400 Horseshoe Road**  
**Sayreville, N.J. 08872**

Phone No.\*: **201-376-7153**

Cell No.: **908-731-1091 (kizer)**

Email Results to: **wmkizer@parsenviro.com**

Email address: **GKowalski@creamerenvironmental.com**

Invoice To\*: **Creamer Environmental, Inc.**  
**ATTN: 12-2260**  
**215 Union Street**  
**Hackensack, N.J. 07601**

Phone No.: **201-968-3300**

Email: **GKowalski@creamerenvironmental.com**

P.O. No.: **12-2260**

Credit Card: ☐ Card on File ☐ Call for Credit Card Info.

☐ Samples submitted using the FreePumpLoan™ Program

☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
<input checked="" type="checkbox"/> Standard	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

Site Name: **Horseshoe Road**

Project: **12-2260**

Sampled by: **W.M. Kizer, SSO**

Comments:

**Analysis VOC's: BTEX, trichloroethylene, trichlorobenzene, chloroform, chlorobenzene, perchloroethylene, (tetrachloroethylene), methylene chloride**

List description of industry or Process/interferences present in sampling area:

**Former precious metal reclamation facility**

State samples were collected in (e.g., NY)

**NJ**

Please indicate which OEL this data will be used for:

☒ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA  
☐ MSHA ☐ Other (specify):

Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units* L, ml, min, in2, cm2, ft2	Analysis Requested*	Method Reference*	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
20130930 - 001	09/30/13	3M 3500	403	Minutes	See "Comments" Section		Soil Excavation
20130930 - 002	09/30/13	3M 3500	403	Minutes	See "Comments" Section		Soil Excavation
20130930 - 003	09/30/13	3M 3500	225 240	Minutes	See "Comments" Section		Soil Excavation
20130930 - 004	09/30/13	3M 3500	403 403	Minutes	See "Comments" Section		Soil Excavation
20130930 - 005	09/30/13	3M 3500	418 417	Minutes	See "Comments" Section		Soil Excavation
20130930 - 006	09/30/13	3M 3500	389	Minutes	See "Comments" Section		Soil Excavation
20130930 - 007 (Blank)	09/30/13	3M 3500	0	Minutes	See "Comments" Section		Soil Excavation

\*Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☐ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)\*:

Chain of Custody	Print Name/Signature	Date	Time	Received by:	Print Name/Signature	Date	Time
Relinquished by:	William M. Kizer <i>William M. Kizer</i>	10/07/13	1500	Received by:	<i>DM Macch...</i>	10/14/13	933
Relinquished by:				Received by:			

Samples received after 3pm will be considered as next day's business

\* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page 1 of 1



## **Attachment 2**

Locations of Perimeter Air  
Monitoring Stations

## Perimeter Air Monitoring Station Locations - Week 1 to Week 10



Image shows the site and surrounding area with the location of the four perimeter air monitoring stations.

## Perimeter Air Monitoring Station Locations - Week 11 to Week 14



Image shows the site and surrounding area with the location of the four perimeter air monitoring stations.

## Perimeter Air Monitoring Station Locations - Week 15 to Week 34

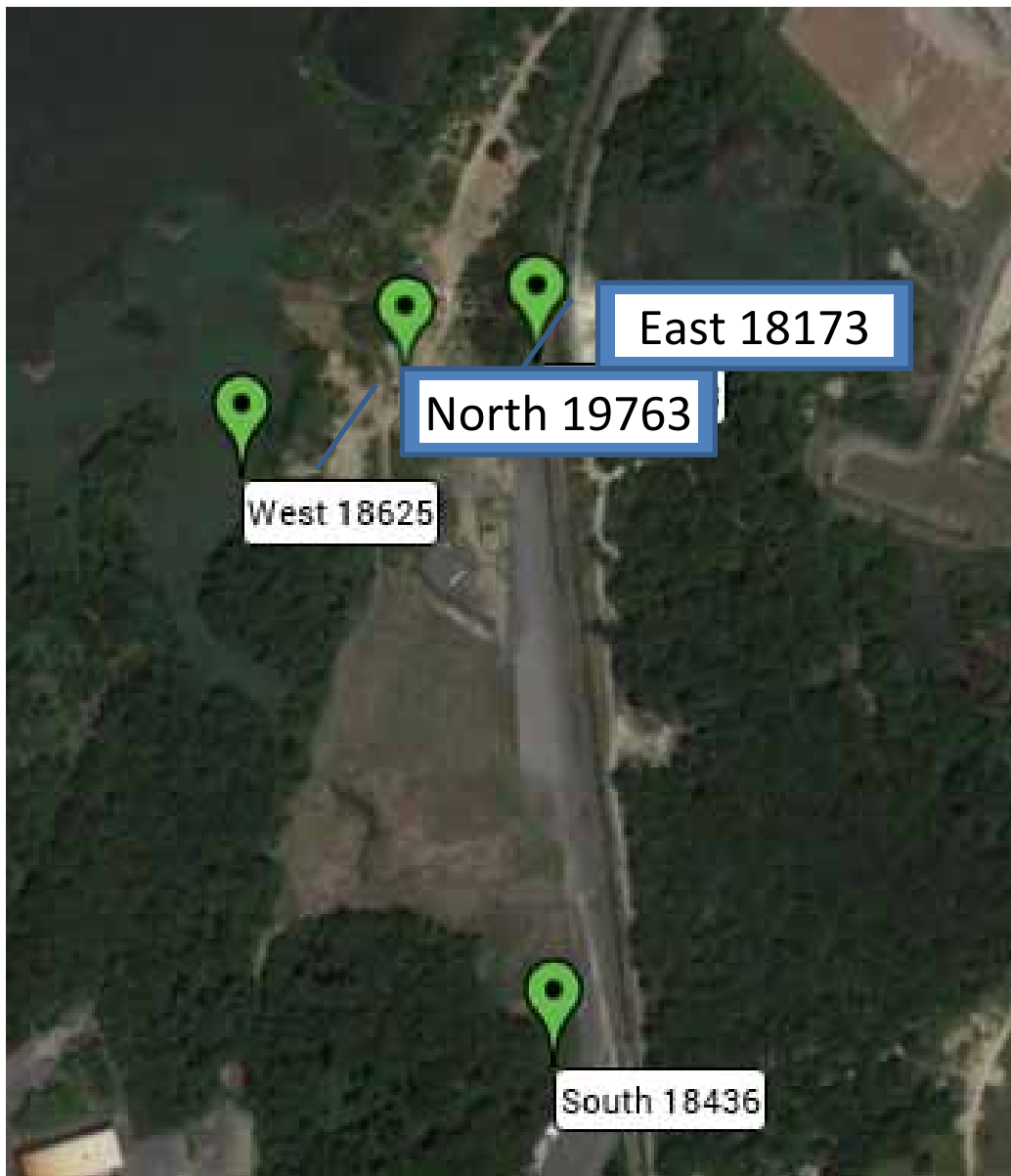


Image shows the site and surrounding area with the location of the four perimeter air monitoring stations.

## Perimeter Air Monitoring Station Locations - Week 35 to Week 45



Image shows the site and surrounding area with the location of the three perimeter air monitoring stations.



## Perimeter Air Monitoring Station Locations - Week 46 to Week 54



Image shows the site and surrounding area with the location of the three perimeter air monitoring stations.

### **Attachment 3**

Health and Safety Audit Findings  
and Response Actions

**Attachment 3 - ARCADIS Corporate Health & Safety Audit Findings, Action Items and Response Actions**

Category	Findings	Comments	Priority	Action Item	Response Actions
Overview	Is the HSCP complete?	Need to clarify PPE during Excavation Oversight	7 Days	Update HSCP to cover Level C PPE during excavation oversight	Level C PPE addressed in JSA for excavation oversight and in ARCADIS Level C HSCP Supplement.
Overview	Did HSCP writer or PM determine Emergency Medical Service response time to site to determine need for staff first aid/CPR training?	Need to determine EMS response time to ensure enough staff are CPR trained.	7 Days	Need to determine EMS response time to ensure enough staff are CPR trained.	K Held spoke to representatives from Sayreville Emergency Squad & Dispatcher Dougherty at Sayreville PD. Confirmed they are both familiar with the site address, location and activities. Response time assured at <10min by PD and that an ambulance should be on-site in <10 min under typical conditions. In accordance with the HSCP at least two personnel from ARCADIS have current CPR and First Aid Training. Two personnel from CEI also have current training.
Overview	Does HSCP include STAR or TCP?	Remove Vegetation at exit to site by railroad crossing. Unable to see oncoming trains from the right.	7 Days	Remove vegetation to the right at egress railroad stop.	Project submittal documents included TCP which has been reviewed by project management team C King notified ICE to notify appropriate agents of the railroad of this condition. Railroad representatives attended a site meeting in December at which time management team reminded railroad managers of vegetation concern. Vegetation was controlled near site access by railroad contractor during spring season.
Overview	Has there been any TIPs or other Conformance Assessments conducted on the project? If so, were solutions addressed and corrective actions implemented?	Need to enter TIP's, Near Misses, and contractor incidents into 4-Sight	Immediate	Need to enter TIP's, Near Misses, and contractor incidents into 4-Sight	TIPs, near misses and incidents were entered into 4-Sight with 76 TIPs, 6 near miss reports and four incident reports. Reports are summarized in the Closeout Report and project dashboard in 4-Sight.
Chemical Material Storage	Are flammable/ combustible liquids in approved safety cans and contents? Labeled?	Labeled containers need to be stored in Flammable and Acid cabinets	7 Days	Labeled containers need to be stored in Flammable and Acid cabinets	Site acquired bench-sized flammable liquid and acid storage cabinets located in the/sampling equipment room of the ARCADIS trailer.

Category	Findings	Comments	Priority	Action Item	Response Actions
Chemical Material Storage	Are compressed gas cylinders properly stored? Valve protection caps in place?	Secure cylinders to ensure they do not tip over and/or remove cylinders no longer in use.	Immediate	Secure cylinders to ensure they do not tip over and/or remove cylinders no longer in use.	CEI, acquired two cylinder racks and has been using nylon come-along straps to secure cylinders that are removed from the rack for service in the field. One location, near the foam machine, continued to use wires as a specific preference of Laborers operating foam machine until Area K was completed. Subsequent to Area K all cylinders were stored in racks with nylon retention straps.
Emergency Response	Are staff aware of the communication procedures in the case of an emergency (e.g., who to contact, how to contact them, and directing emergency response to the site)?	Where are alarm stations/ air horn stations? Designate locations with air horns.	Immediate	Designate locations for air horns	K.Held reviewed procedure for summoning site and municipal emergency response at morning tailgate and site orientation with review of site map showing locations of air horns and fire extinguishers. W. Kizer, T.Gulya & T.Van Riper (CEI personnel) also reviewed emergency contact and emergency response information during morning meetings.
Emergency Response	Are monthly first aid kit checks completed and documented?	Inspection completed but not documented	Immediate	Document inspections	A clipboard with the first aid kit item checklist was posted near first aid supplies. Additional clipboards for vehicle inspections were posted on the same wall. Inspection entries spanned the October 2013-May 2014
Excavation Trenching	Are excavations, adjacent areas, and protective systems inspected and conditions documented by a Competent Person: Daily prior to the start of work and after any occurrence that could increase the hazard?	No documentation	7 Days	Document inspections	CEI - documents daily inspection by competent person on work Zone Air monitoring report. T. Van Riper completes inspection, confers with SSO and inspection is documented by SSO. Report is included with Daily Quality Control Report. ARCADIS also inspected excavations and oversight of the CEI inspection process prior to entries.
Excavation Trenching	Are barriers (guardrail system, fences, or barricades) provided at the edge of an excavation 6 feet (1.8 m) or more in depth when the excavations are not readily seen because of plant growth or other visual barrier?	Exterior site fence is only barricade to prevent fall in	7 Days	Review excavation openings, ensure they are protected or clearly identified	Extensive ribbon flagging system was added to excavation boundaries and maintained throughout the course of the project. Ribbon flagging was wrapped around driven fence posts spaced approximately 25-ft apart. 500-1,000 ft. of perimeter flagging was typical during the Oct 2013-Feb 2014 time period.

Category	Findings	Comments	Priority	Action Item	Response Actions
Excavation Trenching	<p>For those excavations in which employees will not be entering and there is no protective system in place, are employees maintaining a safe distance away from the edge of the excavation?</p> <p>Informational Note: In some instances, an excavation will not have any protective systems in place when employees will not be entering into the excavation. Even if employees are not entering into this type of excavation, a competent person should be consulted to establish a safe zone distance away from the edge of any open excavation to minimize the hazard of falling into this type of excavation. Standing at the edge of an excavation places an employee at risk of falling into the excavation, thereby subjecting themselves to the hazard of excavation/trench collapse, which then triggers the requirement for protective system use. To eliminate the potential for employee exposure to excavation/trench collapse, the general guidance would be for employees to remain 6 feet or more away from the edge of any excavation.</p>	Entry into excavation is limited to CEI. Should include rescue harness or basket.	7 Days	Ensure rescue plan and equipment are in place	Flagging system around excavations was established and maintained as described above. Safe access distance > 2 ft. from excavation edge was maintained. CEI maintained field recovery stretcher on site with designated extraction team.

Category	Findings	Comments	Priority	Action Item	Response Actions
Excavation Trenching	Are employees protected from cave-ins when entering or exiting excavation?	No shoring or benching used	7 Days	Ensure rescue plan and equipment are in place	Shoring and benching were used in accordance with the approved Excavation Plan and OSHA Excavation Standard. Personnel are not required to have rescue harness in areas accessible to heavy equipment such as sufficient ramp for dozer or roller to get to excavation bottom. Rescue harness and lanyard used for entry into areas not readily accessible by ramp were stored in a C-box
Excavation Trenching	If excavation is a trench greater than 5 feet in depth, is trench box or other wall supporting equipment being used?	No shoring or benching used	7 Days	Ensure rescue plan and equipment are in place	Trench boxes were used in Cells H, I, and K and sheet driven walls were used in Cells AD and AE as described in the approved excavation plan. All excavation sidewalls were sloped according to plan design and monitored with GPS-based surveying inside excavator.
Excavation Trenching	If the excavation is over 5 feet in depth, not entirely in stable rock and employees will enter, is there a protective system in place? Identify Type of Protective System in Place:_____	No protection in place	7 Days	Ensure rescue plan and equipment are in place	Excavations were sloped or bench to design specifications, typically 45 degrees. In some locations trench boxes or sheet piling were used. Rescue equipment was maintained in a C-box.
Excavation Trenching	For excavations exceeding 20 feet in depth, has a Registered Professional Engineer designed the protective system?	Unable to determine excavation depth	Corrected		Excavation plan included areas with depth in excess of 20-ft. Professional Engineer approved excavation plan including all slopes as well as protective systems used where excavation was > 20-ft. depth.
Excavation Trenching	Are materials and equipment that are used for protective systems routinely inspected and in good condition?	No inspections noted	7 Days	Ensure rescue plan and equipment are in place	Materials and equipment used manufactured systems for sidewall protective systems, such as trench boxes, and sheeting were designed by PE. All equipment was inspected by CEI competent person and ARCADIS CQC and documented. Each component is inspected for proper installation and stability. Procedures are documented in the Site Excavation Inspection and Daily Activities Report.

Category	Findings	Comments	Priority	Action Item	Response Actions
Excavation Trenching	Are protective systems installed without exposing employees to hazards of cave-ins, collapses, or threat of being struck by materials or equipment?	As per 29CFR 1926.51(j)	7 Days	Ensure rescue plan and equipment are in place	Trench boxes were slide rail systems that were installed prior to excavating soil. Personnel were not inside boxes while excavation was underway. Sheet driven wall was also installed prior to excavation. Interior was divided into discreet sections. Personnel were prohibited from standing or working inside any section while excavation was underway inside the same section.
Excavation Trenching	Safety harness and lifeline are used and individually attended when entering bell-bottom pier holes, or other similar deep and confined footing excavations?	Certain types of excavations require use of harness and lifelines as per 29CFR1926.651(g) (2)(ii)	7 Days	Ensure rescue plan and equipment are in place	There were no pier holes or footing excavations.
Ladders	Was the correct type of ladder selected (e.g. step, extension)?	Wooden ladders can absorb COC when used in roll offs	7 Days	Recommend reviewing use of wooden ladders and replacing.	There was considerable discussion on the type(s) of ladders permitted for use and requirements for only using OSHA rated ladders. Personnel utilizing ladders were primarily laborers and dock workers. They were included in discussions and they expressed preferences and their rationale for their preferences. Multiple types of ladders were available for each application requiring ladders, including wood ladders which were preferred by some individuals for some applications, particularly for climbing into rail cars. Concerns for wood absorbing site contaminants was discussed. Personnel always went through personnel decontamination which included boot wash, outer glove disposal and disposal of coveralls. Weekly ladders inspections were conducted and documented. Some ladders were destroyed as a result of inspections. There were no incidents or close calls that involved ladders. Use of ladders was inspected daily.
Ladders	Was the ladder inspected prior to use? (e.g., if a wood ladder is used, is the ladder in good working condition (no cracks, damaged support structures, loose steps, free of	Completed but not documented	7 Days	Document inspections	Weekly inspections were documented by CEI SSO from October 2013 through May 2014. ARCADIS observed inspections and monitored log book.



Category	Findings	Comments	Priority	Action Item	Response Actions
	grease and oil, etc.)?				
Ladders	Are the bottom feet of a step ladder treated with an insulating non-slip material?	Wooden ladders have no non-slip footing	7 Days	Recommend reviewing use of wooden ladders and replacing.	Ladders were inspected weekly including wood ladders. Wood ladders were preferred by selective group accessing rail cars and later by dockworkers for access to bottom of sheet driven wall. These groups were informed of non-slip footing and potential shortcomings of wood ladders. SSO was observed during weekly inspections. Ladder users took part in the inspections. OSHA approval of wood ladders, ladder condition, inspection process, and training were monitored by ARCADIS who made point of using the same ladders as CEI personnel. Findings and recommendations were discussed often. Rejected ladders were destroyed.
Ladders	If using an extension ladder, was the ladder placed such that the horizontal distance between the top support and the foot of the ladder is equivalent to 1/4 of the working length of the extension ladder?	Unable to achieve proper ladder angle when using ladders in roll-offs	7 Days	Recommend reviewing use of wooden ladders and replacing.	CEI acquired a wider selection of ladders including: aluminum extension ladders, fiberglass ladders and wood ladders. As noted above, personnel using ladders expressed preferences. All personnel were indoctrinated on use and routine inspections. All ladders had OSHA certification with weight restrictions. Ladder users were questioned about the OSHA weight limit for the ladders they were using as well as strategies for securing the top and ensuring stable footings.
Remediation Systems	Does the building have adequate emergency exit signage?	Missing signage. Install Exit signs	7 Days	Install proper signage	ARCADIS installed EXIT sign in WWTP and NOT AN EXIT sign installed in trailer on false door.
Remediation Systems	Is housekeeping sufficient (floors dry, no trash or filters lying around)?	Wet floors	7 Days	Review leaks and repair as needed	CEI - Maintains dry floors in WWTP and other interior locations. ARCADIS conducts frequent inspections. Inspections were entered into weekly health and safety site inspection form.
Remediation Systems	Is equipment in good condition?	Minor leaks noted. System is located in 2nd containment	7 Days	Review leaks and repair as needed	CEI - Leaks are repaired and system is maintained with licensed WWTP operators and Local Labor.



Category	Findings	Comments	Priority	Action Item	Response Actions
Remediation Systems	If hearing protection is required are signs posted?	Missing signage	7 Days	Install proper signage	HEARING PROTECTION REQUIRED signage was posted inside WWTP.
Vehicle Safety	Have weekly "walkarounds" been completed and documented?	Completed but not documented	Immediate	Document Inspections	Vehicle inspection forms are on clipboards in the PPE/supply room. Weekly inspections are conducted and documented.
Vehicle Safety	First Aid Kit present in vehicle?	Not present	Immediate	PPE Grab Bag	First aid Kit and Fire Extinguisher were kept in site vehicles and the presence and condition of these items were part of weekly vehicle inspections.
Vehicle Safety	Fire Extinguisher present in vehicle?	Not present	Immediate	PPE Grab Bag	Fire extinguisher & First Aid Kit was present in one vehicle, which was offsite at the time of the audit. Extinguisher and first aid kit was added to second site vehicle and included as part of the weekly vehicle inspections.
Vehicle Safety	Orange Strobe/Oscillating Light present?	Not present	Immediate	PPE Grab Bag	Project management team investigated purchase and practical considerations (planned use, and maintenance requirements). Team decided there were no planned occasions for use of oscillating light with the ARCADIS site vehicles. As a result the lights were not purchased. CEI maintained an oscillating light on-site in case an escort was needed.
Vehicle Safety	Are insurance card(s) present and valid?	Not present	Immediate	PPE Grab Bag	Missing insurance cards was obtained from Enterprise. Presence of current insurance and registration was verified during weekly inspections.
Vehicle Safety	Is the vehicle equipped with a fire extinguisher?	Not present	Immediate	PPE Grab Bag	Both vehicles were outfitted with fire extinguishers. Prior to audit, only one vehicle had a fire extinguisher.